

8-14-2017

## 2017 – The Development of the Land Tenure and Water Systems in California and Specifically in the Salinas Valley Groundwater Basin [Draft]

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**[DRAFT]**

14 August 2017

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# The Development of the Land Tenure and Water Systems in California and specifically in the Salinas Valley Groundwater Basin

FROM THE ABORIGINAL PERIOD TO THE 20<sup>TH</sup> CENTURY. ABORIGINAL AS  
USED REFERS TO INDIVIDUALS WHO RESIDED IN CALIFORNIA BEFORE THE  
ARRIVAL OF THE EUROPEANS

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# Introduction

Beginning with the Aboriginal period through the Spanish, Mexican and United States eras, a look at the maps and governmental documents from these periods will reflect the state of knowledge regarding California along with the driving needs and policies that determined how water was used and managed.

The maps and documents referenced in this presentation can be found in the California State University Monterey Bay “Hornbeck Collection – Historical Land Use in California” at <http://digitalcommons.csumb.edu/hornbeck>

For access to digital copies of maps and documents, see Appendix A.



# Introduction

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This presentation will address:

1. Aboriginal Period
2. Spanish Development Policy
3. Mexican Development Policy
4. United States Development Policy
5. Salinas Valley Land Development
6. Salinas Valley Water System Development



# Aboriginal Period

Using maps, the Aboriginal Period examines what the Europeans thought were the physical and geographical attributes of California prior to the colonization of this region of North America by Spain.

In this section are maps that show the general location of the various aboriginal tribal groups. The maps reflect the limited knowledge that Spain, Mexico and the United States possessed regarding the aboriginal tribal groups located in California.

# Aboriginal Period (1588)

5



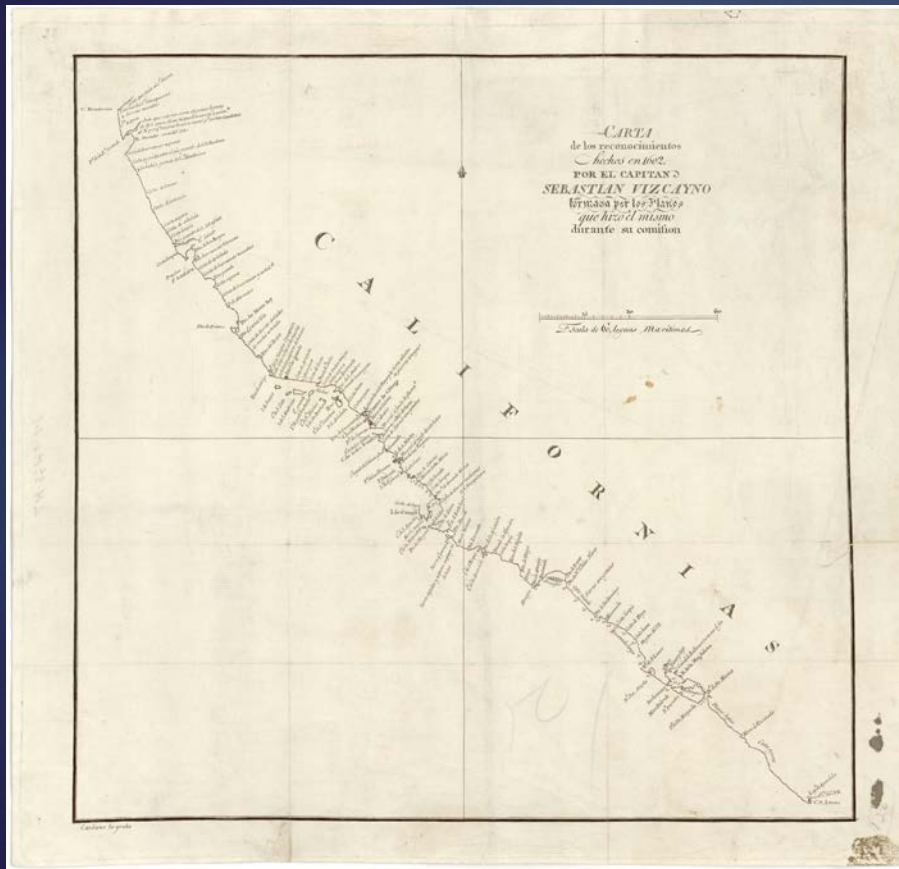
Although Spain laid claim to California at the beginning of the 16<sup>th</sup> Century, the Europeans knew little about California even as late as the beginning of the 17<sup>th</sup> Century. It is currently thought that there were between 250,000 to 500,000 aboriginals in California when the Europeans arrived.

1588 - Americae sive Novi Orbis novae descriptio – Cum privilegio decennali Ab. Ortelius delineabl. Et excudeb. 1587



# Aboriginal Period (1602)

6



This 1802 map is a consolidation of the 32 maps of harbor and coastlines prepared by Vizcaino during his 1602 exploration of the California coast. The Vizcaino expedition was Spain's first investigation of California. This map supports the proposition of Hackel discussed on Slide 8 that the principal population concentration of aboriginals in California was among the Chumash in the area between Ventura and Santa Barbara.

[For further information concerning the his explorations, see "[Documents from the 1602-1603 Sebastian Vizcaino Expedition up the California Coast.](#)"]

[Carta de los reconocimientos hechos en 1602 por el Capitan Sebastian Vizcaino – 1802 Map](#)



# Aboriginal Period (1650)

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Little was known about the physical characteristics of the land or of the people found in California compared to the eastern regions of North America.

1650 - Amérique Septentrionale Map



# Aboriginal Period (1851-1852)

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“And in many ways, the diversity of California itself was mirrored in---and produced by---the wide range of peoples who lived there. In California, Indians spoke between eighty and one hundred languages, or one in five languages in North America. Except for the Chumash, who had communities of more than 500 individuals, most California Indians lived in small settlements of between 75 and 250 individuals.” *Junipero Serra: California’s Founding Father*, Steven W. Hackel, 2013, page 163. [See also, Appendix 3, California Indian Land Cessions.]

[Map of California Indian Cultures Areas based on Unratified Treaty Lands and County Boundaries](#)

# Spanish Development Policy

The Spanish Development Policy in California was based on the [\*Law of the Indies\*](#). Spain adopted the policy in the 16<sup>th</sup> Century after much political wrangling between the Spanish development interests and the Pope. This policy described how the Western Hemisphere was to be colonized. It contemplated the development of Missions, Presidios and Pueblos. Spain was actively involved in the colonization of what eventually became Texas, New Mexico and Arizona -- basically the States west of the Mississippi -- but paid little attention to California until after the Seven Years War (French-Indian War). Then Spain decided it was in its political interest to colonize California. Essentially, Spain gave California to the Franciscans to hold in trust for the aboriginal people with the Franciscans adhering to the colonization policy set forth in the *Law of the Indies*. The land in the Missions was to be turned over to the aboriginals after they had been converted and appropriately trained by the Franciscans. The original grant contemplated the process would be finished within ten years. The maps in this section show the progress made by the Franciscans. During the Spanish Period the Missions achieved significant economic success. [\*The Economic Aspects of California Missions\*](#), Robert Archibald. (1978)



# Spanish Development Policy (1772)

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This map was published at the time Father Serra began colonizing Alta-California. Under the **Law of the Indies**, from 1770 to 1824 the Franciscans and the Spanish government through its Viceroy colonized California. The map shows the level of development in Mexico and the area that became the other Western States

1772 - Plano Geográfico de la mayor parte de la America Septentrional Española

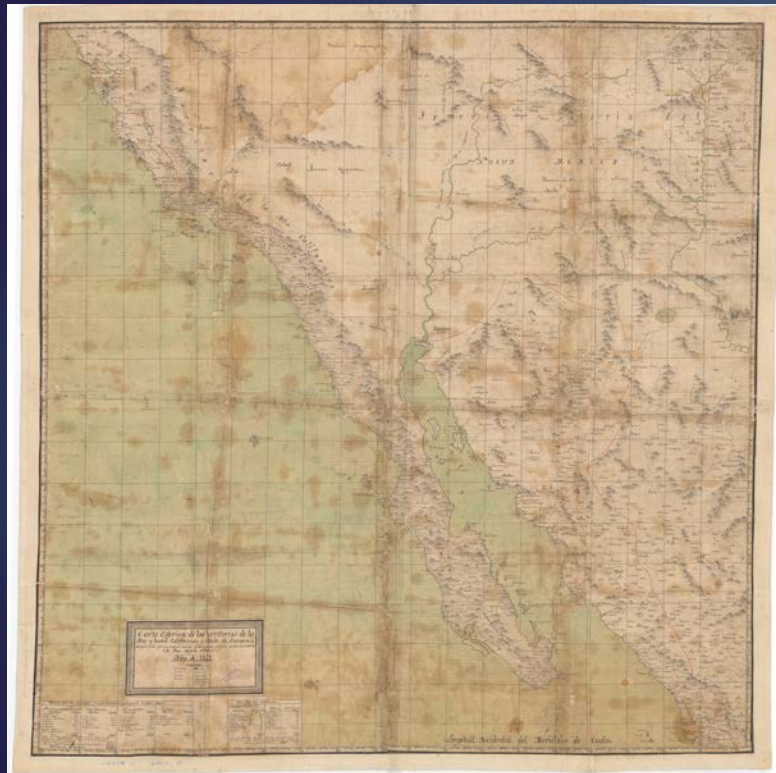


# Spanish Development Policy (1823)

11

This 1823 map shows the magnitude of development in California at the end of the Spanish Period, as well as the extent of California's population recorded by the Spanish. By the end of this period, Missions, Presidios and Pueblos were established all along the California coast.

1823 - Carta Esferica de los territorios de la alta y baxa Californias y Estado de Sonora



Division de la alta California y numero de habitantes que comprende de ambos sexos.							
Monterrey Capital del Semblante		San Francisco		S <sup>ta</sup> Barbara		S <sup>ta</sup> Diego	
Misiones	Neofitos	Misiones	Neofitos	Misiones	Neofitos	Misiones	Neofitos
Carmelo	41						
Santa Cruz	429	S. Francisco	948	S. Barbara	722	S. Diego	1,657
S. Juan Bautista	1,222	Santa Clara	1,084	Purissima	681	S. Juan Capistrano	2,615
Solidad	932	S. Jose	1,620	S. Ines	546	S. Luis Rey	1,092
S. Antonio	1,854	S. Rafael	820	S. Encarnacion	552	Tropa y gente de razon	800
S. Miguel	586	Pueblo de S. Jose		S. Fernando	272		
S. Luis Obispo	467			Tropa y gente de razon	577		
Villa de San Carlos							
Total	5,221	Total	4,802	Total	4,038	Total	6,225
Total de la tropa y gente que llamaron de razon existentes en los distritos de Santa Barbara y S. Diego sin incluir los de Monterey y S. Juan por ignorancia							
			1,377				
			2,035				
			2,192				
Poblacion de la alta California			21,920				

Insert found on the 1823 map reflecting the neophyte population count for each district and mission.

# Mexican Development Policy

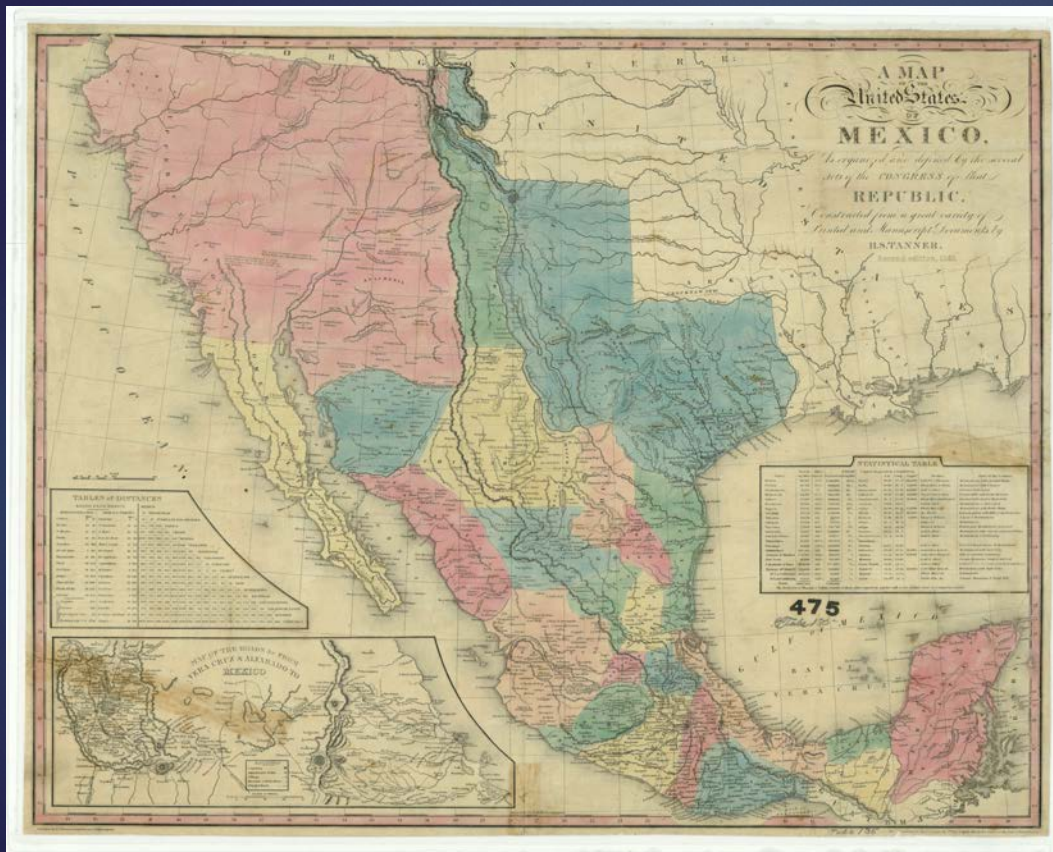
Following its revolt from Spain in 1824, Mexico took possession of California. In the ensuing ten years, there was limited development in California. Most of the land over which Spain previously had direct control was still under the management of the Franciscans for the benefit of the aboriginals. Prior to the Mexican takeover, Franciscans argued successfully that the California aboriginals were not ready to manage the land so the Spanish civil government allowed the Franciscans to stay in control of mission lands. The only land not under control of the Franciscans were the Presidios and Pueblos. In 1834, the Mexican government *secularized the Missions\**, took over the land controlled by the Franciscans and started distributing it to Mexicans or foreigners who became Mexican citizens through a land grant process.

\*See ["Chapter 8. Secularization and the Rancho Era, 1834-1846"](#) (pp. 13-256); [Ohlone/Costanoan Indians of San Francisco Peninsula, and their Neighbors, Yesterday and Today](#), by Randall Milliken, Laurence H. Shoup, and Beverly R. Ortiz. 2009



# Mexican Development Policy (1832)

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Map of United States of Mexico, Second Edition published in 1846. This second edition of an earlier 1832 map of the United States of Mexico depicts what was known in the early 1830s about the Mexican Territory referred to as Upper California.

[1832 - Map of United States of Mexico \(Second Edition 1846\)](#)

# Mexican Development Policy (1839)

14



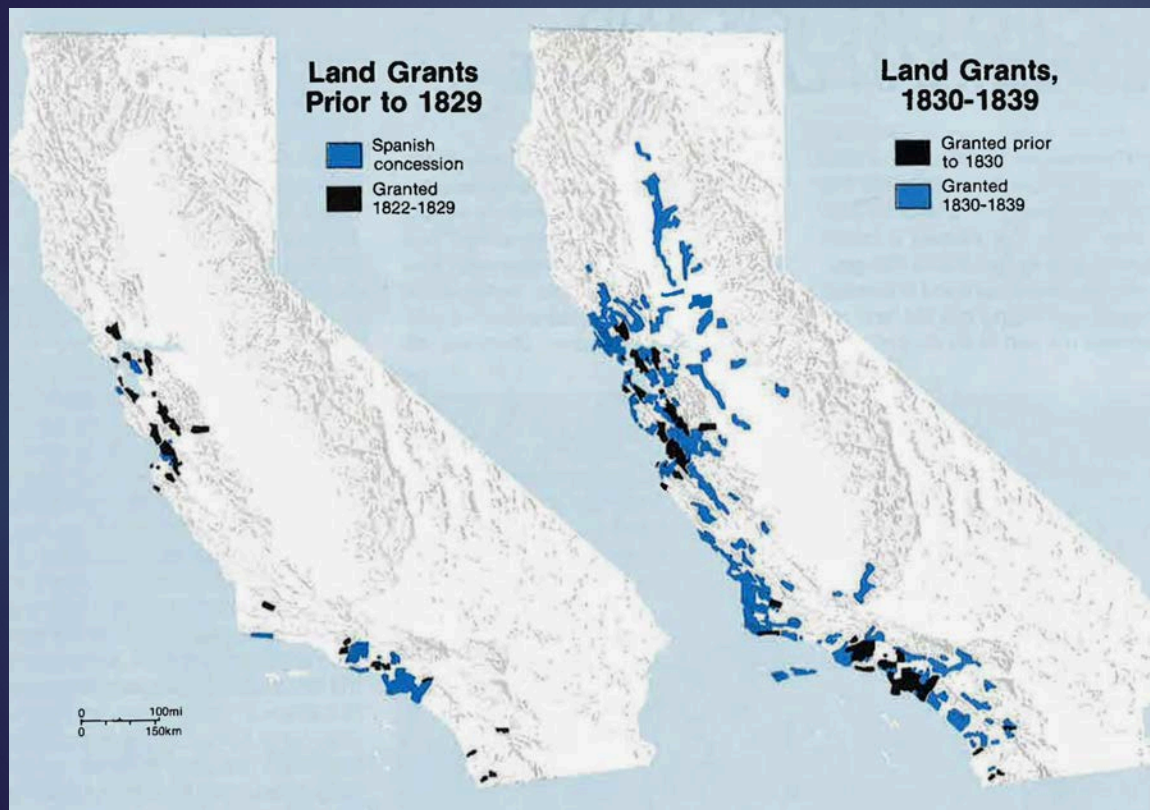
**1839 - Carta esférica de la costa de la Alta California.** This map of the Coast of California during the Mexican Period shows drainage, missions, pueblos and presidios.

1839 - Carta esférica de la costa de la Alta California



# Mexican Development Policy (1848)

15



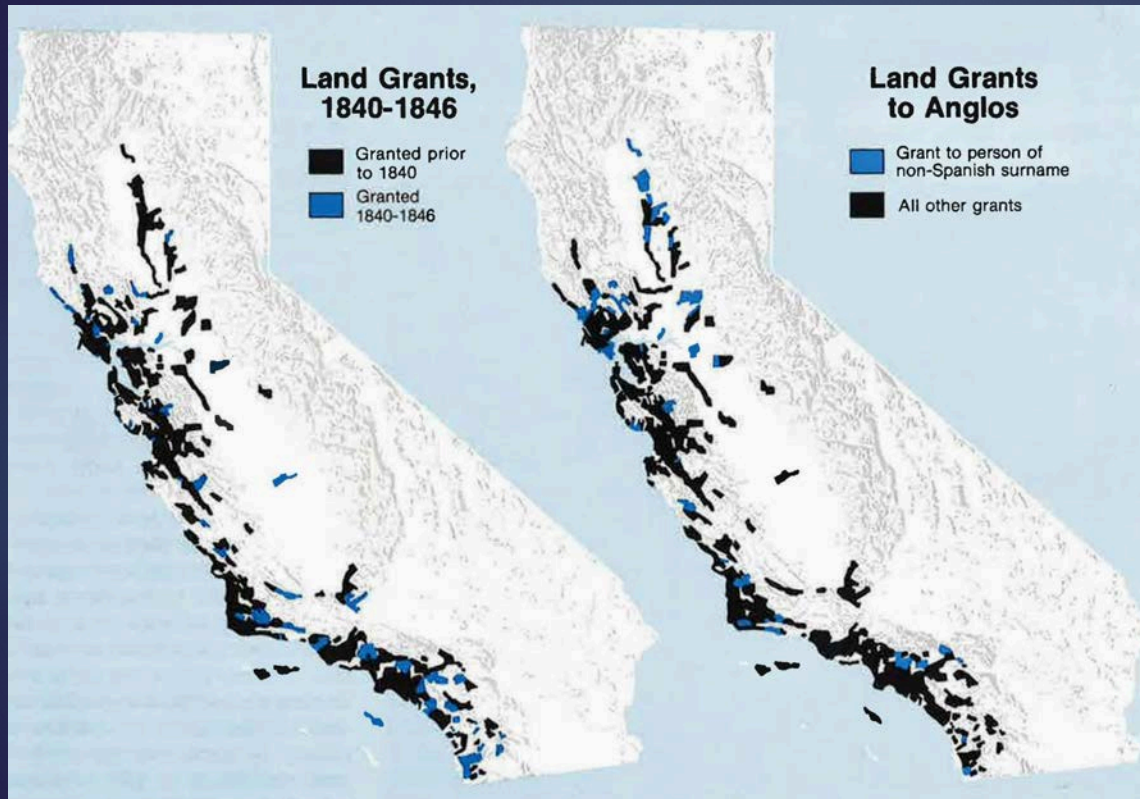
This map and the following map shows the extent of Spanish Land Concessions and Mexican Land Grants that were ultimately recognized by the United States through its patent process.

*Spanish and Mexican Grants Pre-1829-1839, -  
"California Patterns: A Geographical and  
Historical Atlas" by David Hornbeck, 1983.*



# Mexican Development Policy (1848)

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The private land claim process is described in:

- [California Patterns](#) by David Hornbeck at page 58-62;
- [Historical Atlas of California](#) by Beck and Haase in Section 24;
- 1963 report from the National Archives entitled, [Records of Mexican Land Claims](#) in California by Ralph G. Lounsbury.
- 1982 State Land Commission report on [Grants of Land in California Made by Spanish or Mexican Authorities](#)

[Spanish and Mexican Grants, 1840 to Anglos](#)  
- "[California Patterns: A Geographical and Historical Atlas](#)" by David Hornbeck, 1983.

# United States Development Policy

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Following the conclusion of the Mexican War, the United States acquired Mexico's Northern territories which included California. Pursuant to the terms contained in the February 2, 1848, [\*Treaty of Guadalupe Hidalgo\*](#), the United States was required to recognize the land concessions and grants made by Spain and Mexico. Over the next 50-plus years the U.S. went through a complex land patenting process to verify the authenticity of the land concessions and grants authorized by Spain and Mexico. The United States through its own judicial process determined the scope of the Spanish and Mexican rights. Throughout this process, the federal government was also surveying the land in California\* and selling to settlers land that presumably was not protected by Spanish and Mexican rights. However, a substantial portion of land was being sold even though the validity of the private land claims for much of the land still had not been ascertained as required by the terms of the treaty with Mexico.

\* The United States followed the practices it had implemented in earlier land acquisitions. See "[The Public Land Survey System \(PLSS\)](#)." It subdivided the State according to Township and Range subject to the Rancho Claims.



# USA Development Policy (1816)

18



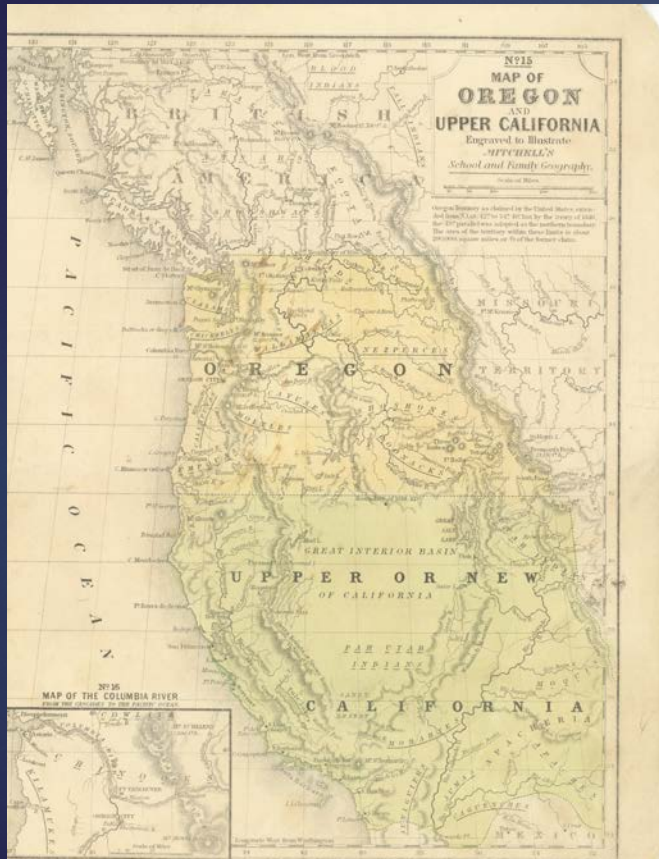
This map reflects what many in the United States thought the Western portion of the United States looked like following the Lewis and Clark expeditions. Some scholars have suggested that this type of map started the United States thinking in terms of the concept of Manifest Destiny.

1816 - Map of United States with the Contiguous British and Spanish Possessions



# USA Development Policy (1847)

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Map of Oregon and Upper New California engraved to illustrate Mitchell's 1847 School and Family Geography. This map provides one with an idea of what United States public knew about California following the Mexican War.

1847 - Map of Oregon and Upper California



# USA Development Policy (1848)

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This 1848 map was prepared at the request of the United States Senate at the conclusion of the war with Mexico. It reflected the extent of the United States' knowledge concerning its new possessions.

1848 - Map of Oregon and Upper California from the Surveys of John Charles Fremont and Other Authorities





# USA Development Policy (1859)

22



This map reflects the land in California surveyed up to 1859 by the United States government based on the [Public Land Survey System](#) (PLSS) established in 1875 by the United States Congress of Confederation. The map does not show all of the Spanish and Mexican private land claims ultimately filed with the California Land Commission. Once land was surveyed, much of it was sold regardless of the status of the land claims.

[1859 - US Surveyor General Map of Public Surveys in California](#)

# Salinas Valley Land Development

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The Salinas Valley has always been one of the most prosperous agricultural regions in California because of its climate, soils and transportation systems. The following slides tell the story of the development of the Salinas Valley from Aboriginal times to the present.



# Salinas Valley Land Development

24

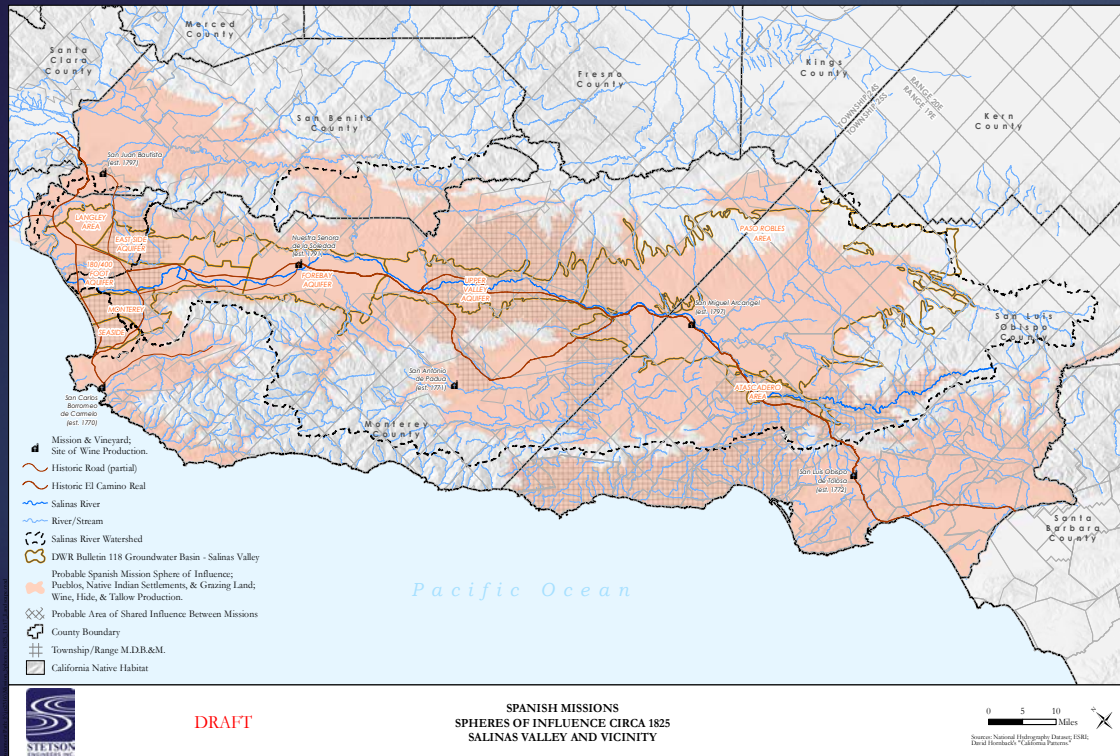
There is limited information available on the location of the aboriginal Villages in the Salinas Valley. Two publicly available reports on this issue are:

- [A Line Through the Past – Historical and Ethnographic Background for the Branch Canal, California State Water Project, Coastal Branch Series Paper No. 1.](#) 2000
- [An Ethnogeography of Salinan and Northern Chumas Communities, 1769 to 1810.](#) 2005

Mary Alice Baldwin in her 1971 Master's thesis suggests there is correlation between aboriginal sites and early white habitation sites. The theory of her thesis is that the early non-aboriginal settlers took over the location of the aboriginal villages because they were located close to water supplies. More research has to be done on the location of the aboriginal settlements.

# Salinas Valley Land Development (1825)

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The aboriginal population in the Salinas Valley was one of the most active and flourishing areas in the Mission system. Scholars suggest that the permanent aboriginal villages were situated around water sources. When the Franciscan missionaries arrived in California, they located their missions around those water supplies. This map shows the location of the Missions by date and the spheres of influence the Missions.

For a discussion of the economic development see: [The Economic Aspects of California Missions, Robert Archibald. \(1978\)](#) [Land Use Trends Salinas River Watershed and Groundwater Basin 1771-2015 \[DRAFT\], Peter Reinelt, Peter Reinelt. \(2017\)](#)

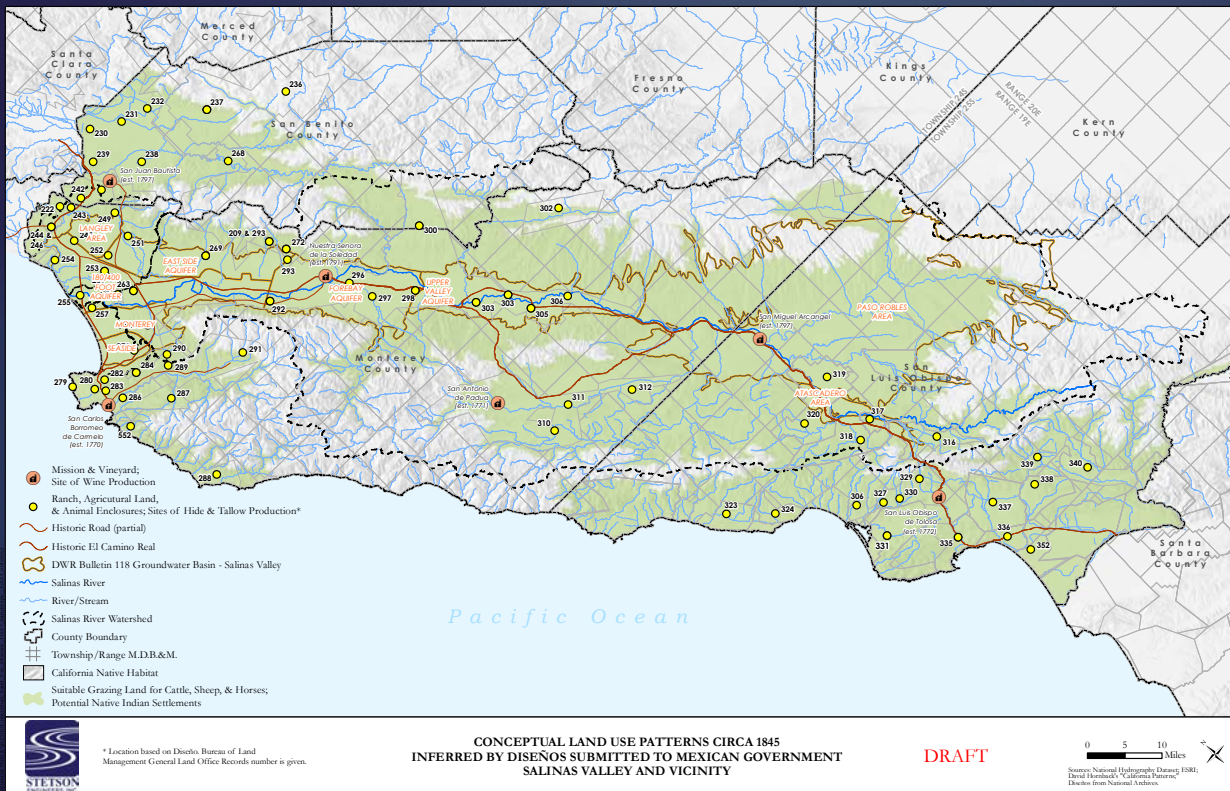
[Mission Spheres of Influence Circa 1825 in Salinas Valley River Watershed \[DRAFT\]](#)

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# Salinas Valley Land Development (1845)

26



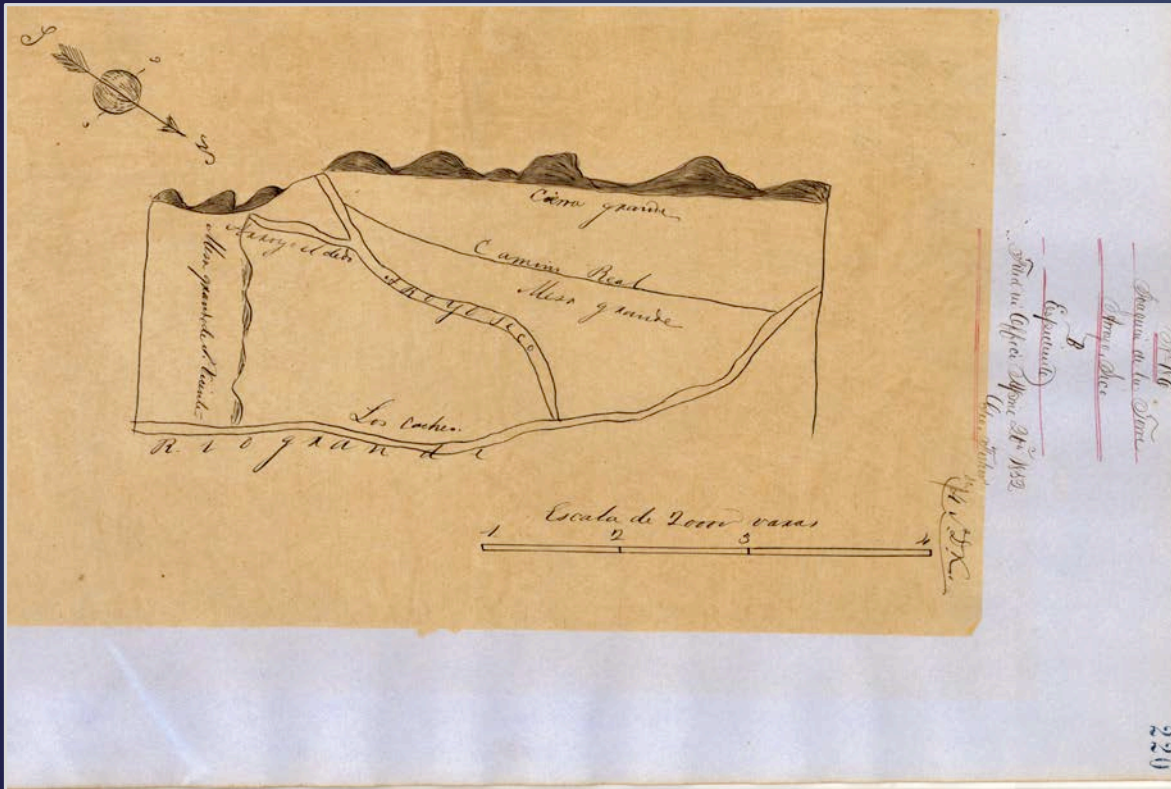
This map reflects the general location of private land grants for which claims were made under the 1851 Act to Ascertain and Settle Private Land Claims in the State of California. [See also, 1848 through post-1925 Public Survey Maps.](#)

[Conceptual Land Use Patterns Circa 1845 Inferred by Diseños Submitted to Mexican Government, Salinas Valley and Vicinity \[Draft\]](#)

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# Salinas Valley Land Development (1852)

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When seeking validation from the United States government of their right to a specific portion of land, Mexican grant holders, along with other proof of ownership, would submit a hand-drawn diseño such as the one shown here.

Arroyo Seco (Torre) - Diseños GLO No. 297  
APN 109 APN 111 Monterey County.\*

\* For individual diseños and related documents for all ranchos located in the Salinas River and Carmel River Groundwater Basins, see [http://digitalcommons.csUMB.edu/hornbeck\\_cgb\\_2\\_a/](http://digitalcommons.csUMB.edu/hornbeck_cgb_2_a/).

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# Salinas Valley Land Development

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BLM Patents in the Salinas Valley and Vicinity by County  
and in Relation to the Bulletin 118 Salinas Valley Groundwater Basin ("SVGB")

Time Period and County	Acres on land not likely contributing to SVGB	Acres on land likely contributing to SVGB	Acres on land overlaying SVGB	Grand Total Acres	Cancelled Patent Acres	Grand Total Patented Acres <sup>3</sup>
<b>1848 Spanish &amp; Mexican Land Grant</b>	<b>642,557</b>	<b>335,215</b>	<b>377,763</b>	<b>1,355,535</b>	<b>0</b>	<b>1,355,535</b>
Monterey County	93,412	232,085	323,049	648,546	0	648,546
San Benito County	198,565	28,201		226,766	0	226,766
San Luis Obispo County	350,579	74,930	54,714	480,223	0	480,223
<b>1850 - 1875<sup>1</sup></b>	<b>236,865</b>	<b>135,143</b>	<b>326,813</b>	<b>698,822</b>	<b>3,705</b>	<b>695,116</b>
Monterey County	7,807	24,627	65,354	97,788	587	97,202
San Benito County	28,047	1,594		29,641	627	29,014
San Luis Obispo County	159,321	108,922	261,459	529,701	2,451	527,251
Other County <sup>2</sup>	41,691	0		41,691	41	41,650
<b>1875 - 1900<sup>1</sup></b>	<b>877,001</b>	<b>995,443</b>	<b>521,595</b>	<b>2,394,039</b>	<b>5,943</b>	<b>2,388,096</b>
Monterey County	88,840	595,094	242,559	926,493	2,332	924,161
San Benito County	313,173	84,511		397,684	883	396,802
San Luis Obispo County	406,815	315,758	279,036	1,001,609	2,553	999,056
Other County <sup>2</sup>	68,172	80		68,252	176	68,077
<b>1900 - 1925<sup>1</sup></b>	<b>335,776</b>	<b>240,182</b>	<b>25,207</b>	<b>601,165</b>	<b>6,420</b>	<b>594,745</b>
Monterey County	36,371	155,666	7,211	199,248	2,699	196,549
San Benito County	112,797	28,778		141,575	1,462	140,112
San Luis Obispo County	114,868	55,716	17,997	188,581	2,057	186,524
Other County <sup>2</sup>	71,740	22		71,762	201	71,560
<b>After 1925</b>	<b>140,509</b>	<b>213,358</b>	<b>5,948</b>	<b>359,816</b>	<b>160</b>	<b>359,656</b>
Monterey County	11,471	132,337	4,414	148,223	0	148,223
San Benito County	66,176	28,510	0	94,686	0	94,686
San Luis Obispo County	27,520	52,483	1,534	81,537	160	81,377
Other County <sup>2</sup>	35,342	27		35,370	0	35,370
<b>Unknown Date</b>	<b>79</b>	<b>454</b>		<b>532</b>	<b>372</b>	<b>160</b>
Monterey County		454		454	294	160
San Luis Obispo County	79			79	79	0
<b>Grand Total Acres</b>	<b>2,232,787</b>	<b>1,919,794</b>	<b>1,257,327</b>	<b>5,409,908</b>	<b>16,600</b>	<b>5,393,308</b>

<sup>1</sup> Excludes Spanish and Mexican Land Grants documented during these Time Periods.

<sup>2</sup> Some patents describe non-contiguous lands that are found outside of Monterey County, San Benito County or San Luis Obispo County; these lands are accounted for in "Other" Counties.

<sup>3</sup> Grand Total Patented Acres are the Cancelled Patent Acres subtracted from the Grand Total Acres.

Data used to compile this table is from the Bureau of Land Management and is the best available digital patent data as of July 2017, though it is not guaranteed to be accurate or complete. Spatial analysis was performed by Stetson Engineers, Inc., San Rafael, CA.

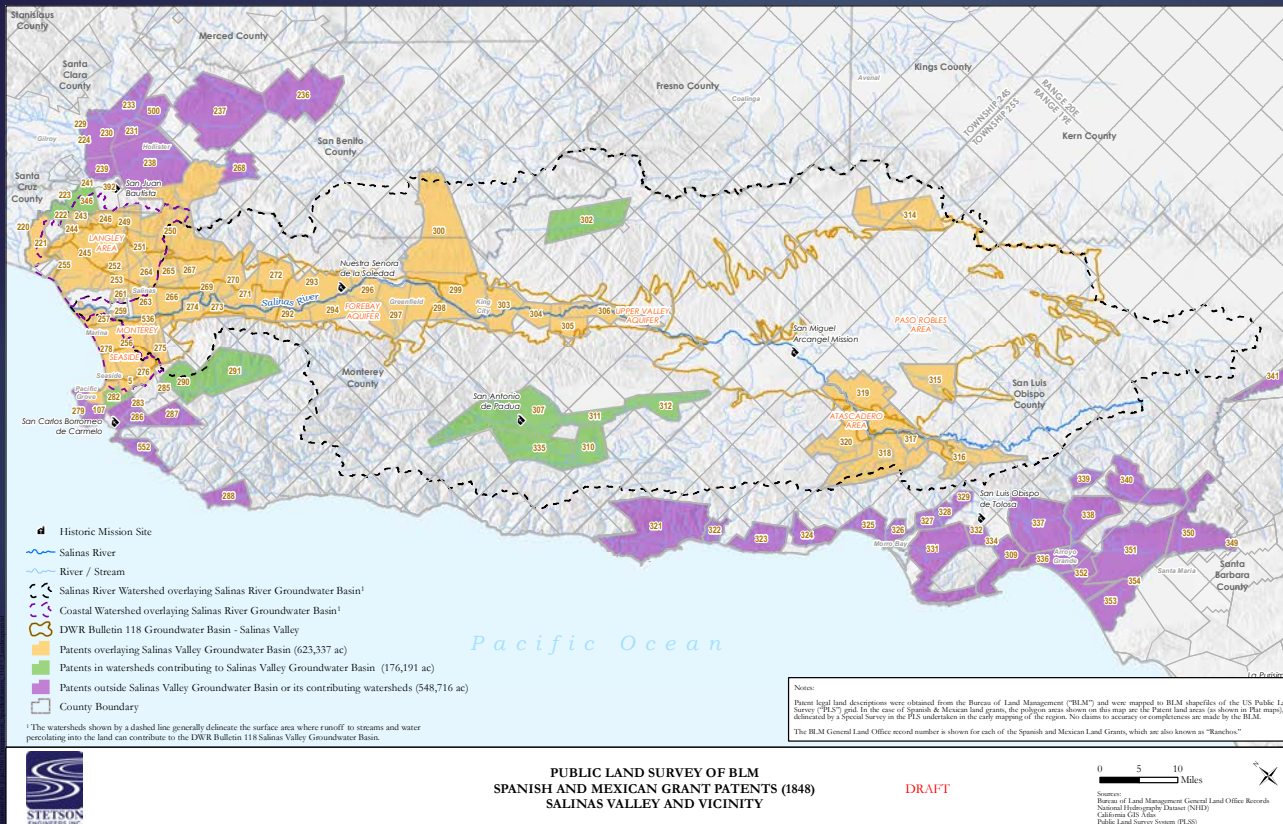
Summary derived from Bureau of Land Management Records of Land Patents issued in the Salinas Valley. (See Summaries of U.S. Bureau of Land Management Patents Issued in Salinas Valley and Vicinity for data sources.)

Summary of Land Patents issued in the Salinas Valley and Vicinity -- from Bureau of Land Management Records

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# Salinas Valley Land Development

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- ▶ 1848 - Draft map based on the Bureau of Land Management public land survey depicting the location of grants issued by the Spanish and Mexican governments in the Salinas Valley and Vicinity, California.

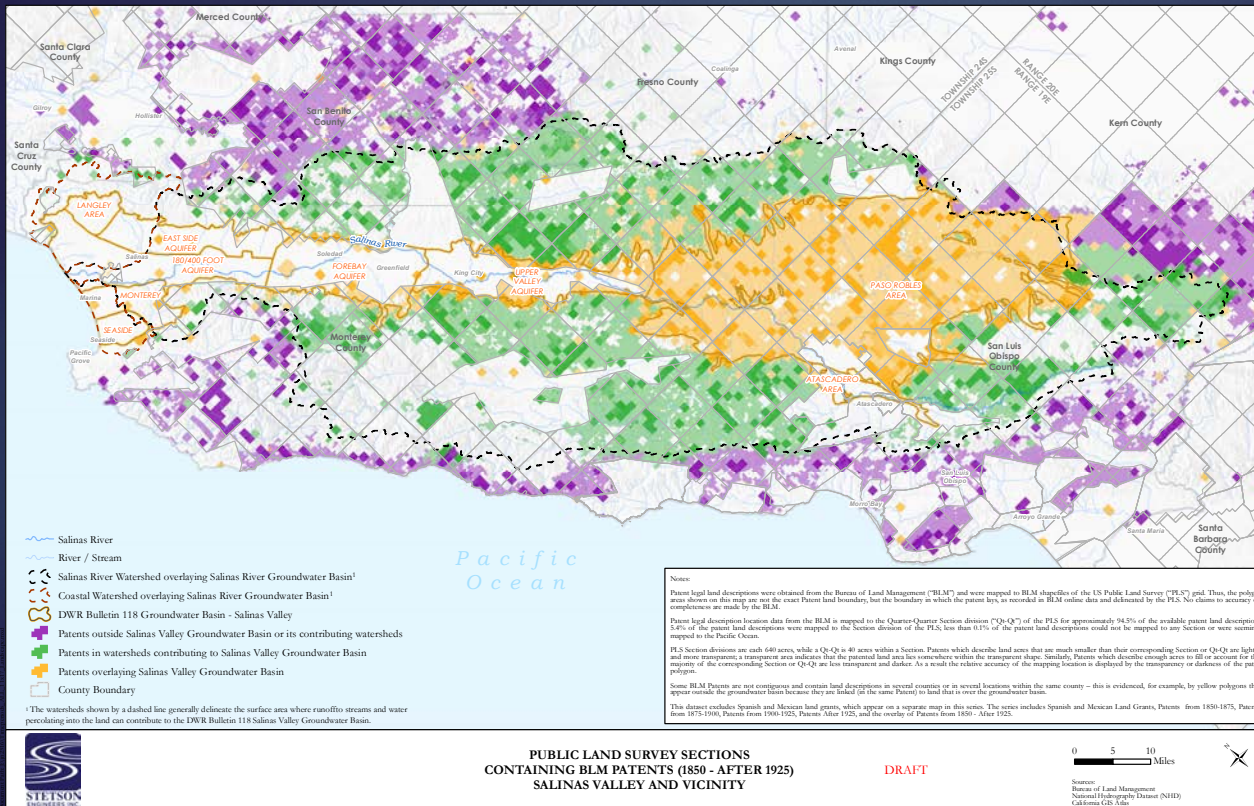
1848 - Public Land Survey of BLM - Spanish and Mexican Grants

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# Salinas Valley Land Development

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- ▶ 1850 through Post 1925 - draft map depicting all Bureau of Land Management patents within the public land survey sections of the Salinas Valley and vicinity, California.

1850 through Post-1925 - Public Land Survey Sections Containing all BLM patents in the Salinas Valley and Vicinity (Draft)

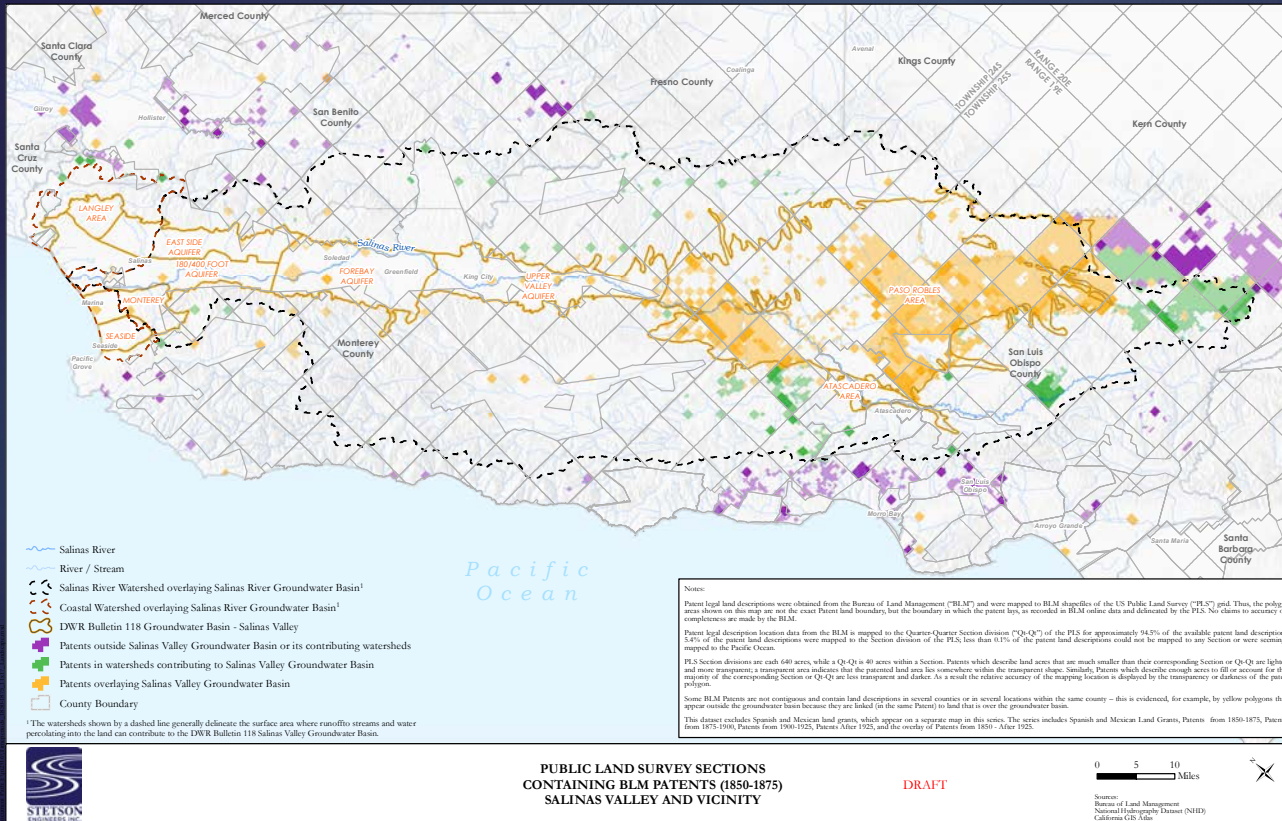
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# Salinas Valley Land Development

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- ▶ 1850 –1875 - Draft map depicting the location of Bureau of Land Management patents granted within the public land survey sections in the Salinas Valley and vicinity, California.



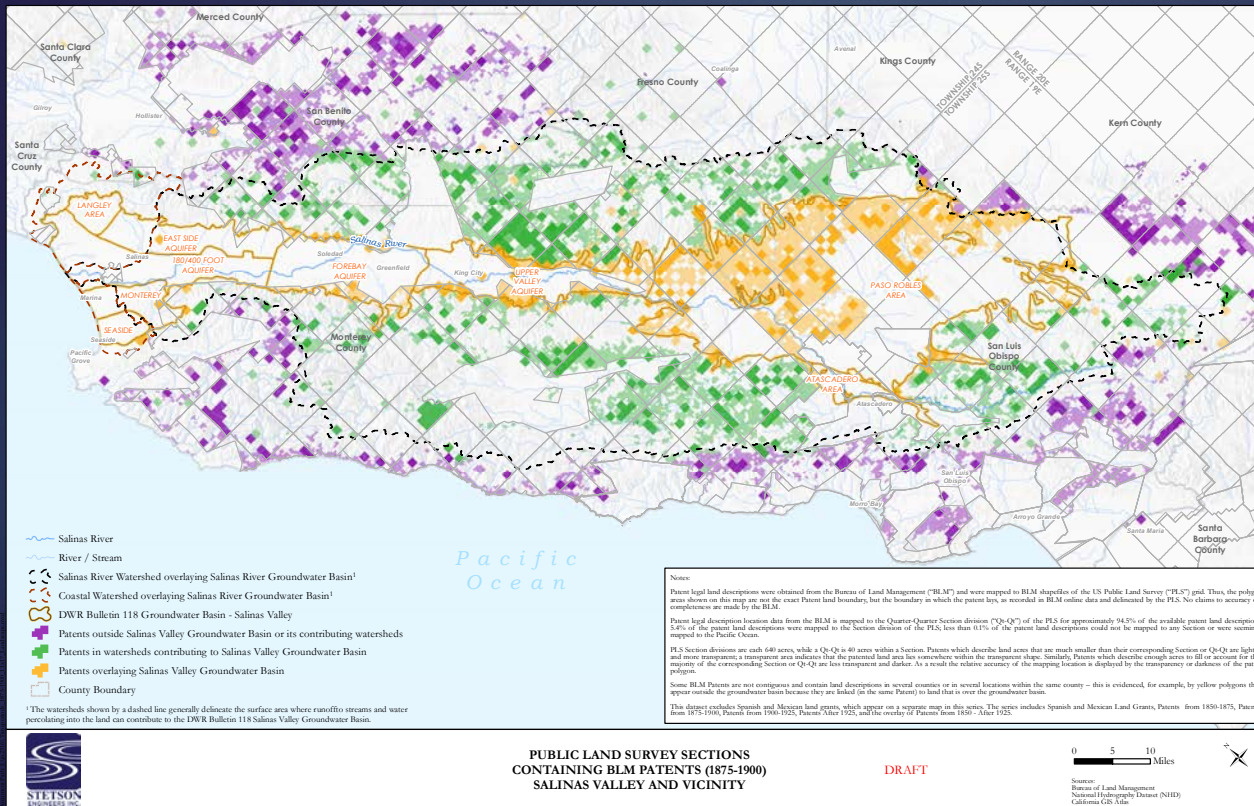
1850 to 1875 - Public Land Survey Sections Containing BLM Patents in the Salinas Valley and Vicinity (Draft)

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# Salinas Valley Land Development

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- ▶ 1875-1900 - Draft map depicting and the location of Bureau of Land Management patents granted within the public land survey sections in the Salinas Valley and vicinity, California.

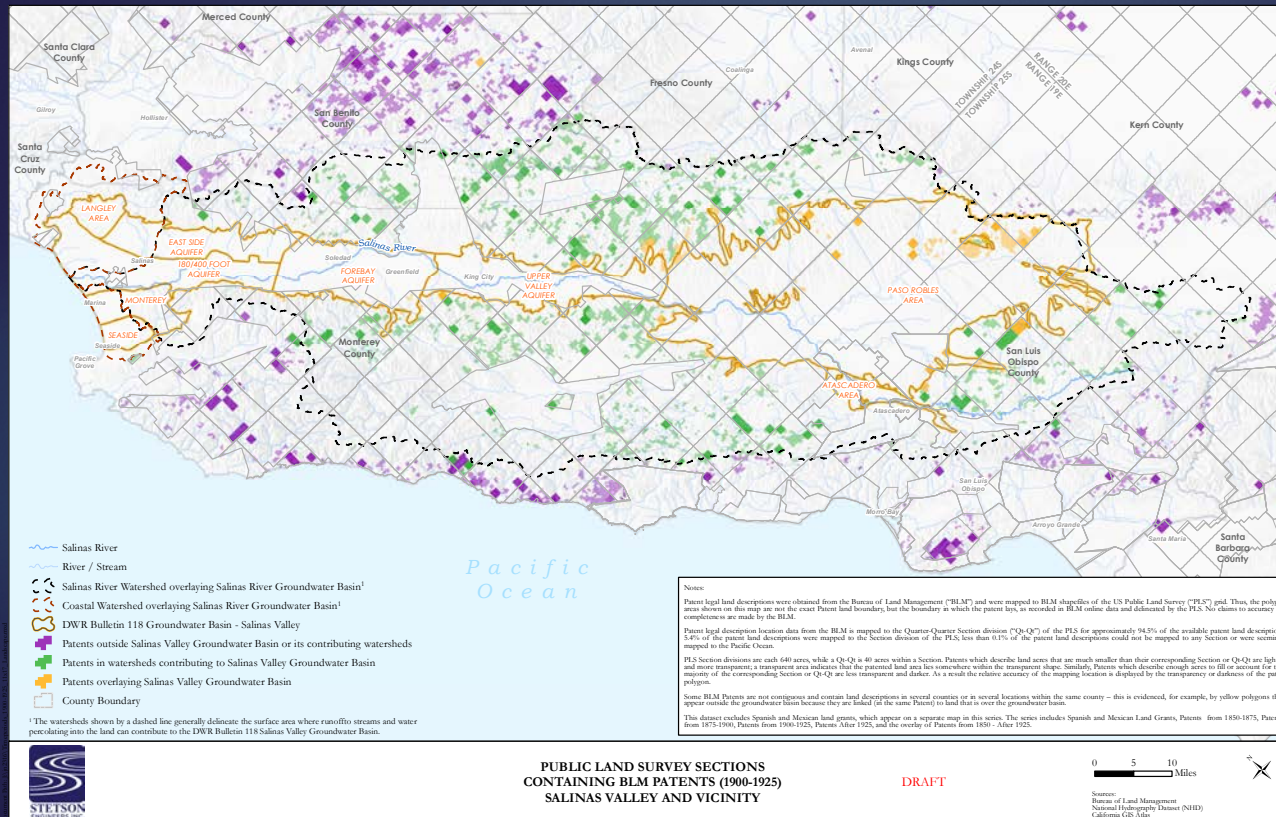
1875 to 1900 - Public Land Survey Sections Containing BLM Patents in the Salinas Valley and Vicinity (Draft)

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# Salinas Valley Land Development

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► 1900-1925 - Draft map depicting public land survey sections and the location of BLM patents granted within the public land survey sections in the Salinas Valley and vicinity, California.

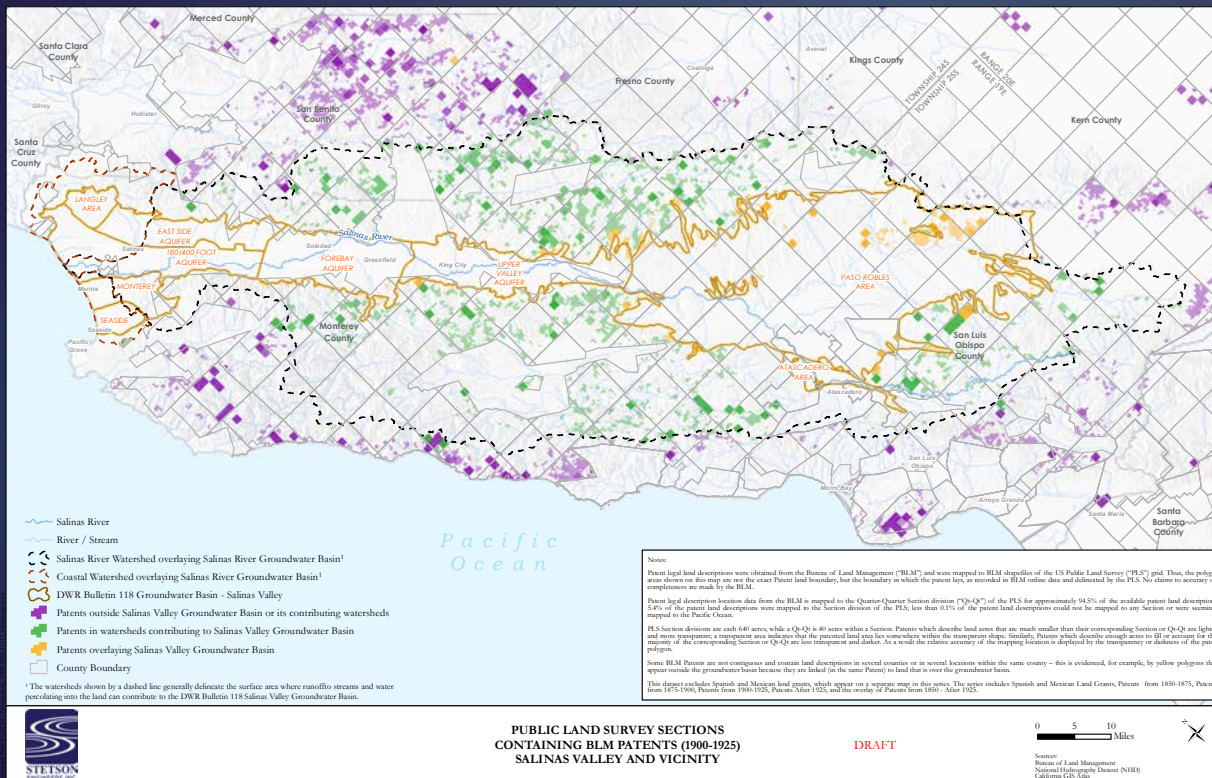
1900 to 1925 - Public Land Survey Sections Containing BLM Patents in the Salinas Valley and Vicinity (Draft)

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# Salinas Valley Land Development

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► 1925 and Later - Draft map depicting public land survey sections and the location of BLM patents granted within the public land survey sections in the Salinas Valley and vicinity, California.

1925 and Later - Public Land Survey Sections Containing BLM Patents in the Salinas Valley and Vicinity (Draft)

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# Salinas Valley Land Development

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**Township Populations in Salinas Valley**

	Monterey County										San Luis Obispo County				
	Monterey	Castroville	Alisal	Gonzales	Soledad	King City	San Antonio	Peachtree	San Ardo and Bradley	Cholame (Mont. Co.)	San Miguel	Cholame (SLO Co.)	Paso Robles	Templeton	Santa Margarita and Pozo
1780	491						502								
1790	787						1,092								
1800	1,197				512		1,114				207				
1810	961				598		1,122				971				
1820	831				436		878				973				
1830	1,129				342		681				684				
1840															
1850															48
1860	1,653		752				281								254
1870	1,923	1,302	2,723												679
1880	no township data Monterey County														1,209
1890	4,677	1,682	3,767	1,104	1,720		1,117	1,103	1,106	933	1,663	806	1,524	1,728	
1900	3,420	2,051	5,121	1,115	833	701	938	610	751	659	1,022	544	2,411	943	896
1910	6,833	1,442	5,076	1,305	1,194	1,563	814	478	807	485	830	419	2,382	877	918
1920	7,217	2,213	6,663	1,417	1,935	1,652	715	498	758	464	652	847	3,066	1,516	1,927

**Incorporated City Populations Salinas Valley**

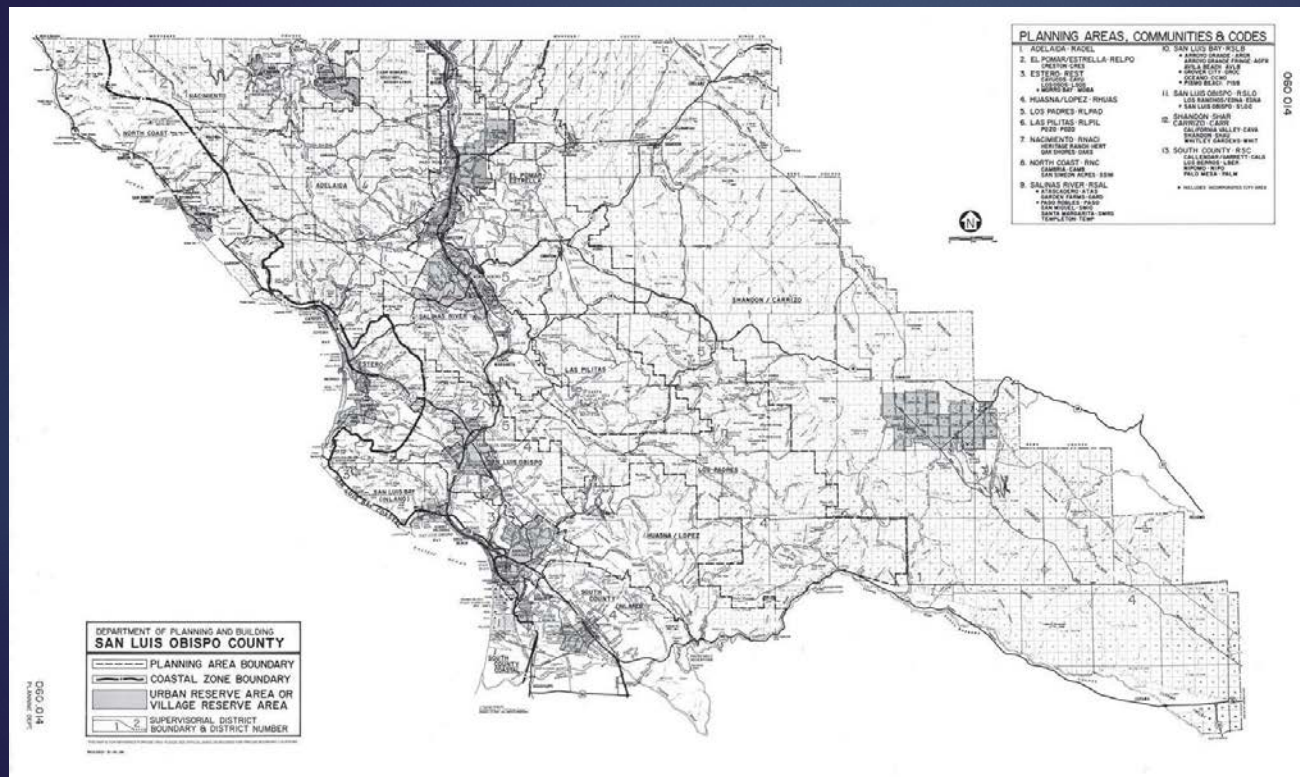
	Monterey	Salinas	Gonzales	Soledad	King City	Paso Robles
1850	1,092					
1860	1,653					
1870	1,112	599				
1880	1,396	1,854	233	136		
1890	1,662	2,339	359	217	253	1,524
1900	1,748	3,304				2,411
1910	4,923	3,736				2,382
1920	5,479	4,308			1,048	3,066

Township Populations in Salinas Valley from 1780 through 1920

Table C1, Land Use Trends, Salinas River Watershed and Groundwater Basin 1771-2-15, Peter Reinelt (2017)



# Salinas Valley Land Development (1872) 36

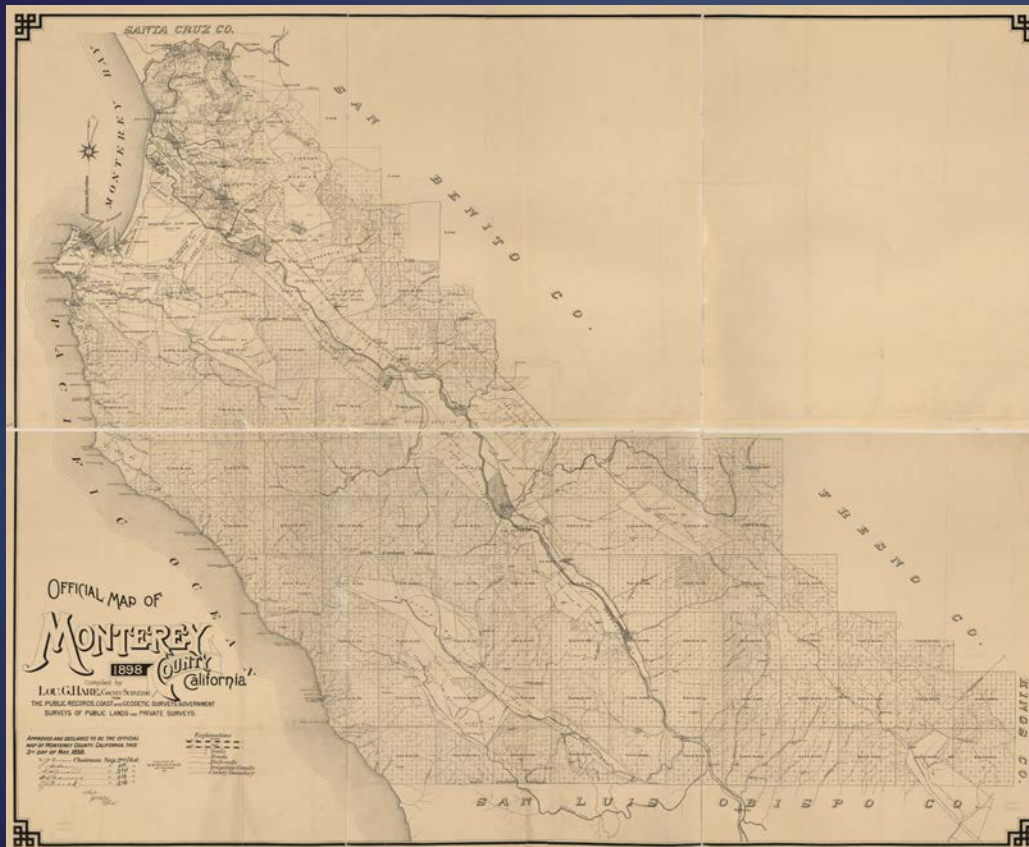


This 1996 map of San Luis Obispo County depicts the Ranchos, as well as Townships and Ranges. (We are waiting for a copy of the original 1872 map from UCLA.)

[San Luis Obispo County Map Township and Range](#)

# Salinas Valley Land Development (1898)

37

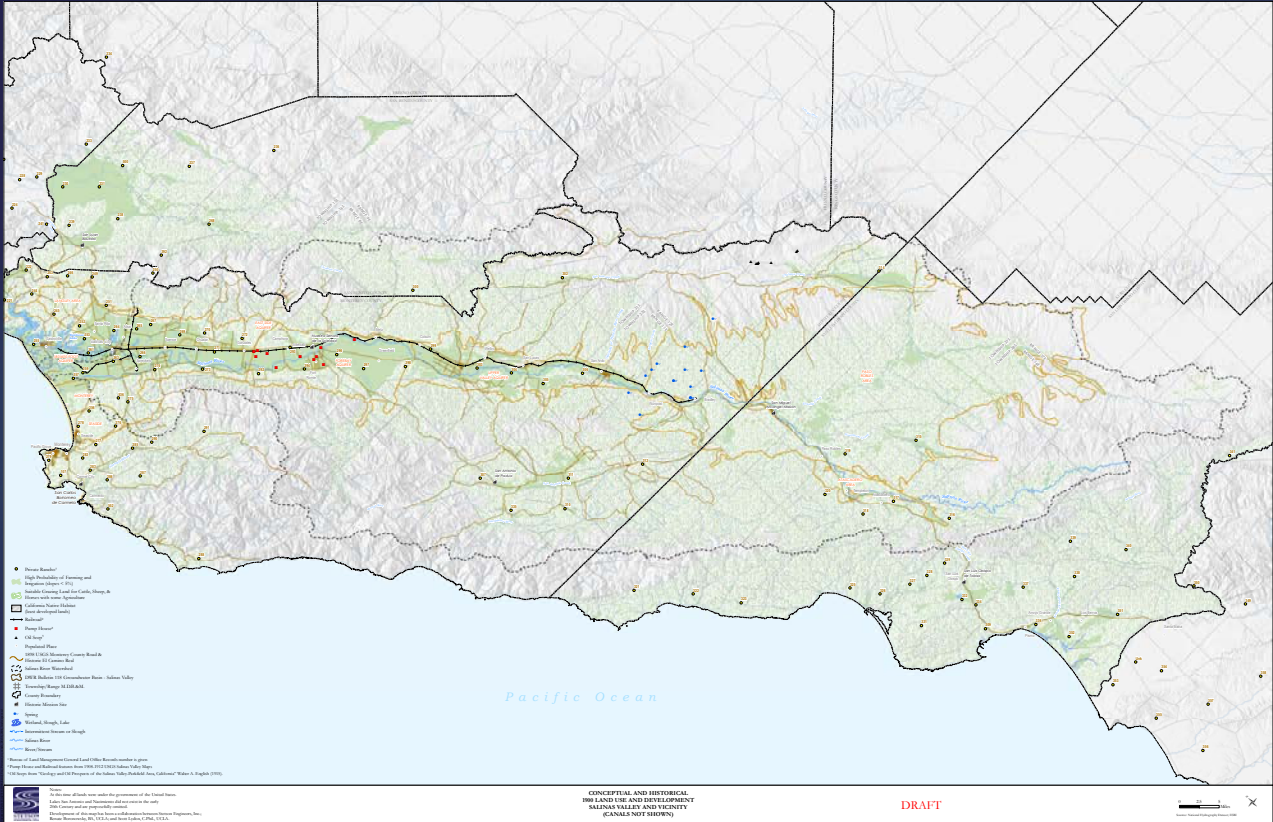


This is the first official survey of Monterey County. It shows the Ranchos, as well as Townships and Ranges.

1898 - Official Map of Monterey County as of 1898, Lou G.Hare



# Salinas Valley Land Development

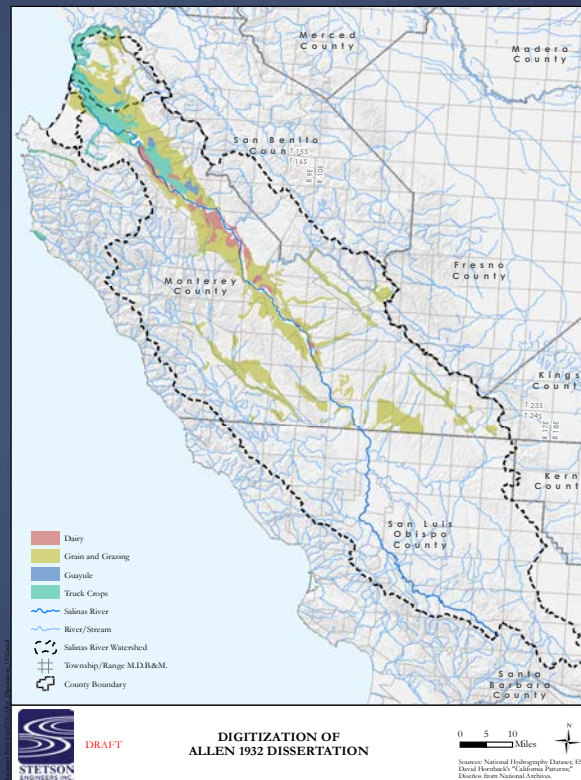
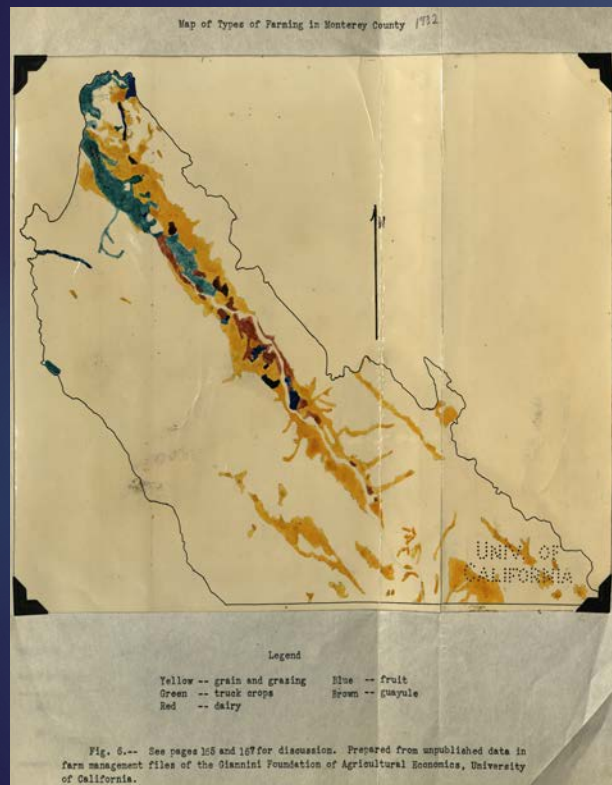


By 1900, many settlers moved into the Salinas Valley where different land use and cropping patterns soon developed.

**Conceptual and Historical 1900**  
**Land Use and Development,**  
**Salinas Valley and Vicinity**  
**(Canals not Shown).**

# Salinas Valley Land Development (1932)

39



This map shows the development of the land along the Coast in the Salinas Valley and the cropping patterns by 1932

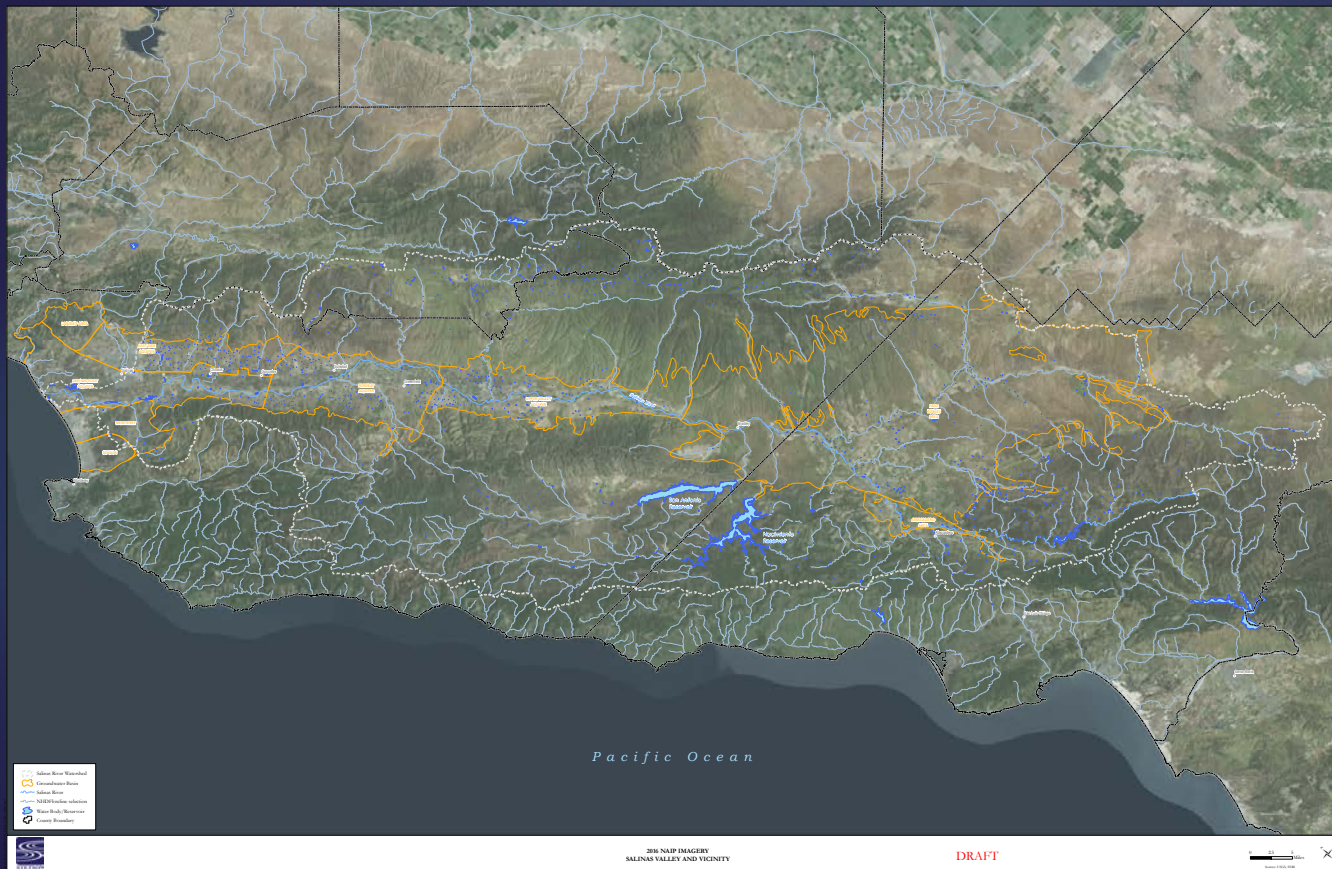
[Digitization of Allen 1932 Dissertation Map depicting Types of Farming in Monterey County, Economic History of Agriculture in Monterey County, Allen 1932 Dissertation; See also, Land Use History and Mapping in California's Central Coast Region, Report No. WI-2003-93, April 2003, Newman and Watson.](#)



# Salinas Valley Land Development (2016)

34

2016 land satellite imagery of the Salinas Valley and vicinity.



2016 NAIP Imagery –  
Salinas Valley and Vicinity

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# Salinas Valley Land Development

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Table 1 – Summary Decadal Land Use Data for Salinas River Watershed and Groundwater Basin

Year	Population	Field Crops	Lettuce & Vegetable	Vineyards, Orchards, Small Fruits	Seed, Nursery	Total Crop Acres	Irrigated Acreage	Rangeland	Total Grazing Herd
1775		25				25		13,905	336
1785		136				136		107,621	2,597
1795		246				246		319,382	7,707
1805		775				775		1,561,679	37,686
1815		845				845		1,790,441	55,738
1825		1,133				1,133		1,744,456	45,027
1835									
1845									
1855	1,057	3,647	422	18		4,088		759,406	60,229
1865	3,401	25,138	856	336		26,331		931,002	131,830
1875	8,751	232,834	3,462	613		236,909		1,036,910	350,023
1885	17,033	245,664	2,078	1,893		249,635		1,054,913	96,054
1895	21,429	462,077	2,357	8,681		473,115	4,013	1,026,299	100,961
1905	20,817	646,519	7,344	14,574		668,437	11,349	1,096,671	137,736
1915	23,416	457,347	1,799	18,740		477,886	33,227	1,180,406	181,920
1925	34,755	342,781	7,522	38,293		388,596	65,848	1,130,368	126,044
1935	52,232	259,842	56,083	23,267		339,192	93,101	1,442,587	137,865
1945	85,920	258,078	73,698	19,411		351,186	119,855	1,507,712	163,530
1955	135,070	298,274	93,110	13,103		404,486	152,581	1,464,770	169,044
1965	180,096	267,329	109,310	13,215	4,575	394,429	176,769	1,519,672	197,527
1975	227,980	226,942	149,770	43,300	3,177	423,189	205,455	1,508,206	217,509
1985	305,827	322,573	183,927	48,475	7,359	562,333	193,873	1,453,172	176,217
1995	377,042	134,092	234,789	52,794	6,300	427,976	251,773	1,497,110	169,475
2005	411,759	61,500	314,817	81,703	7,222	465,242	273,676	1,377,572	109,189
2015	465,432	26,876	276,104	96,686	3,136	402,802	296,378	1,268,986	97,982

Land use estimates for each decade beginning in 1775 and ending in 2015. Missing entries on the table indicate the lack of available data. For example, during the Mexican rancho era following mission secularization (1834 until 1848) records were not maintained as had been done by the Franciscans.

[Table 1, Land Use Trends Salinas River Watershed and Groundwater Basin 1771-2015 \[DRAFT\] by Dr. Peter Reinelt. \(2017\)](#)



# Salinas Valley Water Development

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- The Salinas Valley is a rich water and agricultural area. It is one of the few rich agricultural areas in California which has its own water supply which it has protected over the last 250 years. A limited amount of the water is exported to the City of San Luis Obispo.
- The archeology records suggest there were extensive aboriginal developments in the Southern part of Monterey and Northern part of San Luis Obispo counties. This was made possible because of the water resources in the region. The Franciscan records reflect that Father Serra founded Mission San Antonio because it was a flourishing aboriginal community with a water supply. There is little evidence available about the extent of aboriginal activity or its water supply in Northern Monterey County.
- The Franciscans developed extensive irrigation systems consisting of canal and reservoirs at their three Missions in the Salinas Valley. Based on the current archeology record it is impossible to tell the extent of the Mission water development. We know similar irrigation systems were developed for their Missions in San Antonio, Texas. [\*The Old World Background of the Irrigation System of San Antonio, Texas\* \(Southwestern Studies Series: No 35\); 1972, Thomas F. Glick](#)
- In 1872 California adopted a statute that was relied upon to finance the development of an extensive canal system in the Salinas Valley. Some of the canals may have actually been built in the same place as the original Mission canals. [\*Appropriation and Notice, Title 8, pt. 4, div. 2, Civil Code 1410-1422.\*](#)

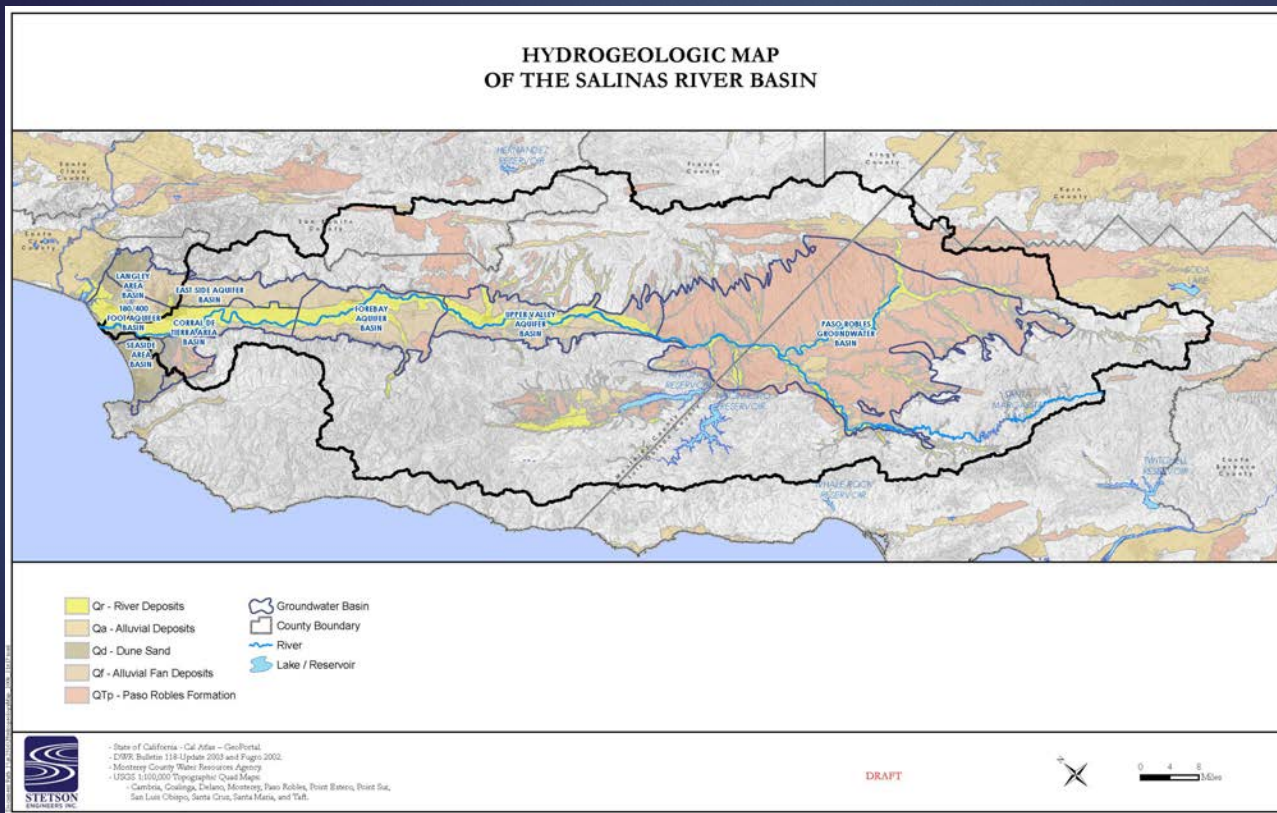
# Salinas Valley Water Development Cont.

- By 1900 extensive canal systems were built to better supply the agricultural activities that were increasing in the Salinas Valley. Government engineering reports from that period suggested reservoirs had to be built because of the inconsistent flows of the water sources. [Water Resources in Salinas, United States Department of Interior, 1904, Homer Hamlin.](#)
- By 1950 most of the canals had been replaced with turbine pumps and new land along the coast came into production thus increasing the intrusion of sea water into the ground water. In the North end of the Salinas Valley, extensive ground water pumping developed ultimately causing an overdraft.
- In the 1950s reservoirs were built but no conveyance was developed to move the water from the reservoirs to the areas affected by sea water intrusion.
- At the turn of the twentieth-first century other systems were built to resolve the sea water intrusion problem in the North end and the overdraft problem in the South end of Salinas Valley.



# Salinas Valley Water Development

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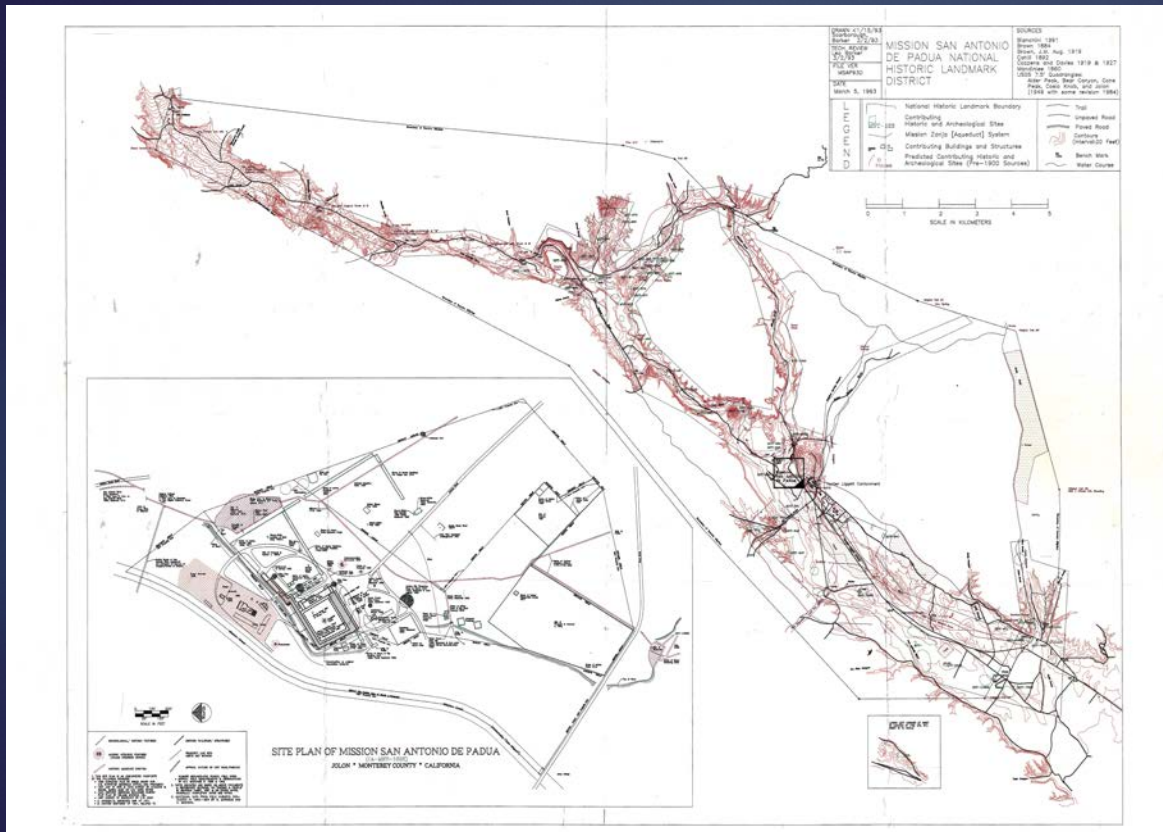
Hydrological Map of the Salinas River Basin. The groundwater basin provided sufficient water.

2016 Hydrogeologic Map of the Salinas River Basin, Stetson Engineers [DRAFT]

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# Salinas Valley Water Development

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It was the missionaries who first developed sophisticated water supplies involving reservoirs and canals.

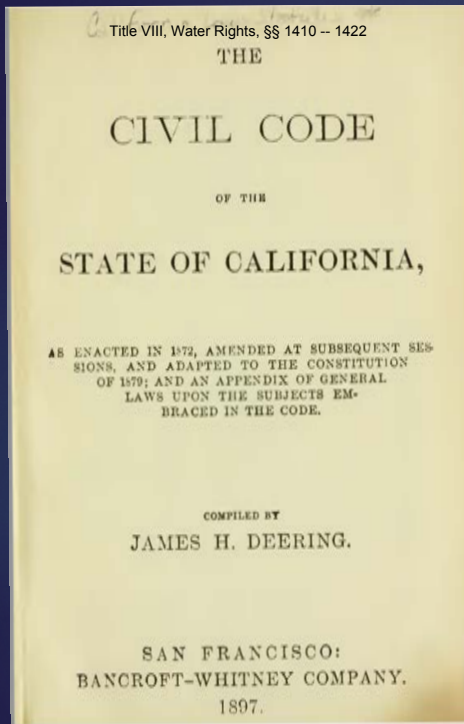
1993 - Map of Mission San Antonio Padua

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# Salinas Valley Water System Development

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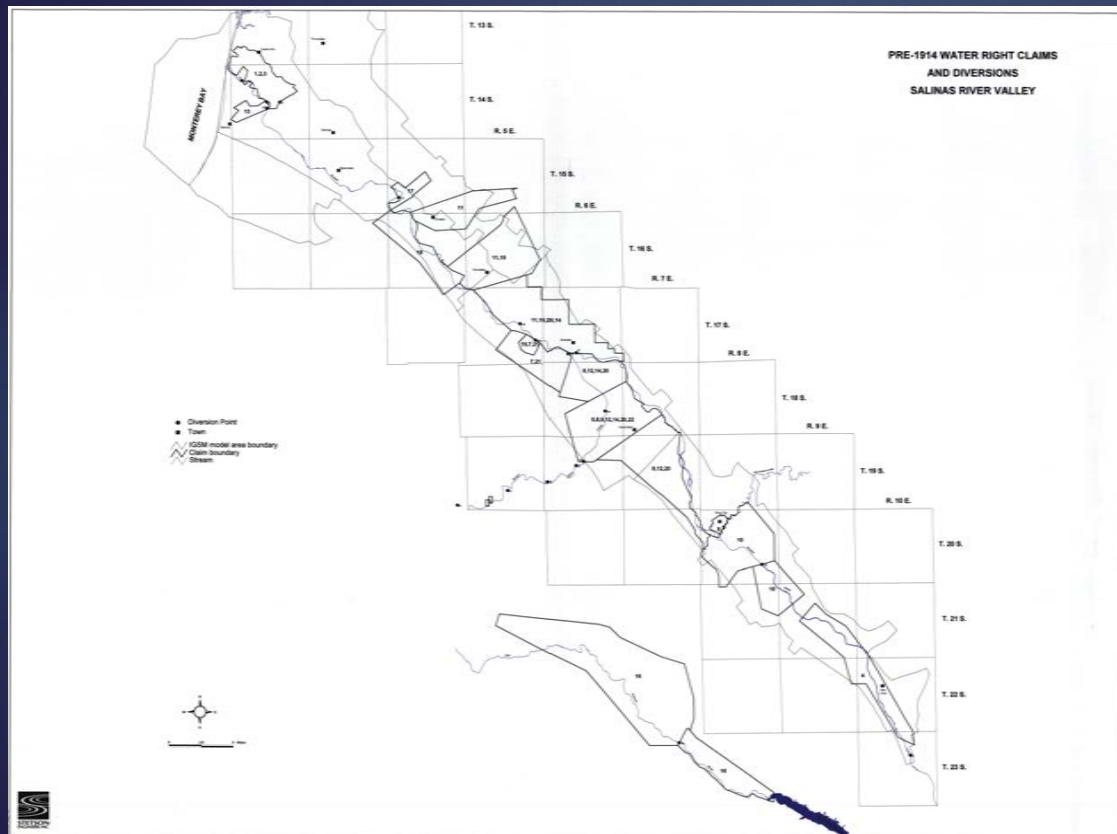
343	WATER RIGHTS. §§ 1413-1415	343	WATER RIGHTS. §§ 1413-1415	§§ 1417-1422	WATER RIGHTS. 344
	injured by such change, and may extend the ditch flume, pipe, or aqueduct by which the diversion is made to places beyond that where the first use was made.		injured by such change, and may extend the ditch flume, pipe, or aqueduct by which the diversion is made to places beyond that where the first use was made.		work diligently and uninterruptedly to completion, unless temporarily interrupted by snows or rain; provided, that if the erection of a dam has been recommended by the California Debris Commission at or near the place where it is intended to divert the water, the claimant shall have sixty days after the completion of such dam in which to commence the excavation or construction of the works in which he intends to divert the water. [Amendment approved March 23, 1895; Stats. 1895, 55. In effect immediately.]
	§ 1413. The water appropriated may be turned into the channel of another stream and mingled with its water, and then reclaimed; but in reclaiming it the water already appropriated by another must not be diminished.		§ 1413. The water appropriated may be turned into the channel of another stream and mingled with its water, and then reclaimed; but in reclaiming it the water already appropriated by another must not be diminished.		Time from which right of appropriation becomes vested: See sec. 1418.
	§ 1414. As between appropriators, the one first in time is the first in right.		§ 1414. As between appropriators, the one first in time is the first in right.		§ 1417. By "completion" is meant conducting the waters to the place of intended use.
	When right begins: See sec. 1418.		When right begins: See sec. 1418.		§ 1418. By a compliance with the above rules the claimant's right to the use of the water relates back to the time the notice was posted.
	Use of water, nature of: See sec. 1411.		Use of water, nature of: See sec. 1411.		§ 1419. A failure to comply with such rules deprives the claimants of the right to the use of the water as against a subsequent claimant who complies therewith.
	Change of use: See sec. 1412.		Change of use: See sec. 1412.		§ 1420. Persons who have heretofore claimed the right to water, and who have not constructed works in which to divert it, and who have not diverted nor applied it to some useful purpose, must, after this title takes effect, and within twenty days thereafter, proceed as in this title provided, or their right ceases.
	Rights of appropriators as against the government and its grantees: See sec. 1410.		Rights of appropriators as against the government and its grantees: See sec. 1410.		§ 1421. The recorder of each county must keep a book, in which he must record the notices provided for in this title.
	§ 1415. A person desiring to appropriate water must post a notice, in writing, in a conspicuous place at the point of intended diversion, stating therein:		§ 1415. A person desiring to appropriate water must post a notice, in writing, in a conspicuous place at the point of intended diversion, stating therein:		§ 1422. [Repealed March 15, 1887.]
	1. That he claims the water there flowing to the extent of (giving the number) inches, measured under a four-inch pressure;		1. That he claims the water there flowing to the extent of (giving the number) inches, measured under a four-inch pressure;		Acts relating to irrigation: See Statutes in force, title, Irrigation.
	2. The purposes for which he claims it, and the place of intended use;		2. The purposes for which he claims it, and the place of intended use;		
	3. The means by which he intends to divert it, and the size of the flume, ditch, pipe, or aqueduct in which he intends to divert it;		3. The means by which he intends to divert it, and the size of the flume, ditch, pipe, or aqueduct in which he intends to divert it;		
	A copy of the notice must, within ten days after it is posted, be recorded in the office of the recorder of the county in which it is posted.		A copy of the notice must, within ten days after it is posted, be recorded in the office of the recorder of the county in which it is posted.		
	§ 1416. Within sixty days after the notice is posted the claimant must commence the excavation or construction of the works in which he intends to divert the water, and must prosecute the		§ 1416. Within sixty days after the notice is posted the claimant must commence the excavation or construction of the works in which he intends to divert the water, and must prosecute the		

In 1872, California adopted a statute that ensured the developers of these irrigation system would be able to "obtain a right to water." This statute was used in the Salinas Valley where canals were built based on this water right.

[Appropriation of Water in California, Civ. Code §§ 1410 - 1422](#)

# Salinas Valley Water Development

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This map reflects of the scope of the canal system in Salinas Valley. The valley responded to the [1872 California water statute](#) by developing water systems that relied on the water rights claims and diversion of water from the rivers in the valley. These claims are discussed in detail in the 1997 Salinas Valley Water Coalition Request to MCBOS to Deny Tanimura & Antle Claim.

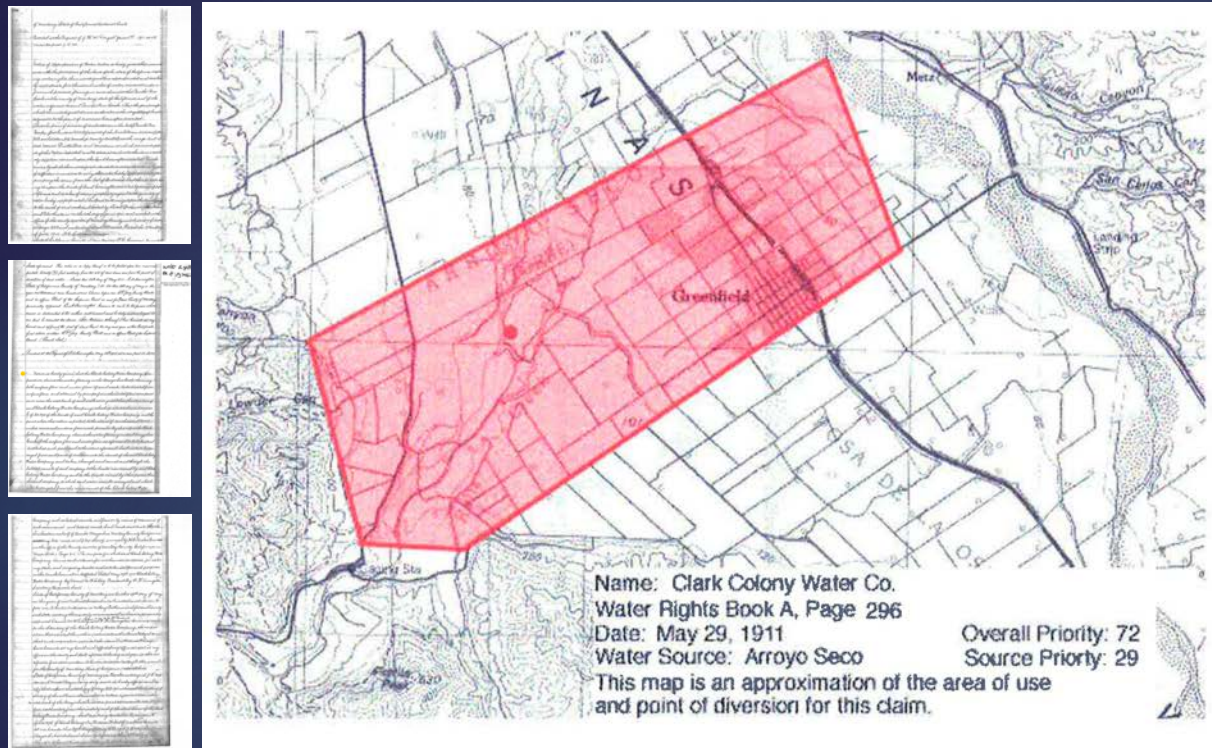
[See Post - 1872 State Water Claims, and Salinas Valley Water Coalition Request to MCBOS to Deny Tanimura & Antle Claim, April 14, 1997](#)

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# Salinas Valley Water Development (1911)

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This is an example of the Notice of Water Claims

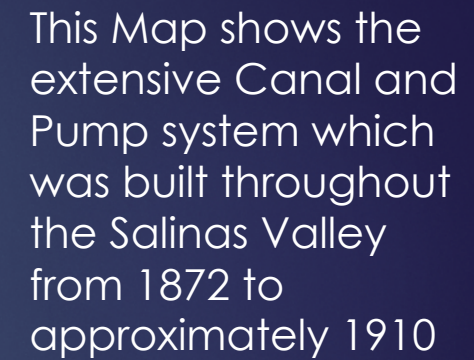
June 5, 1911 - Notice of Water Claim of Clark Colony Water Company\*

\* For additional Post-1872 State Water Claims, see [http://digitalcommons.csumb.edu/hornbeck\\_cgb\\_10/](http://digitalcommons.csumb.edu/hornbeck_cgb_10/).

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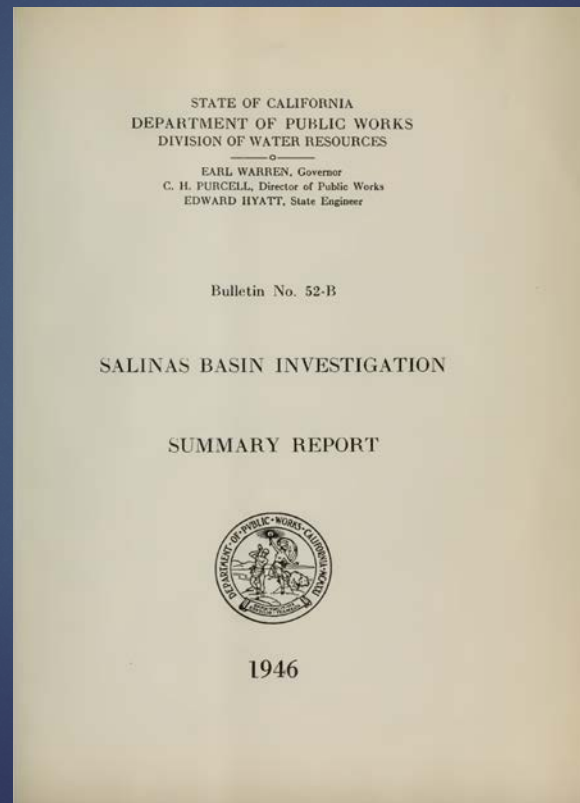
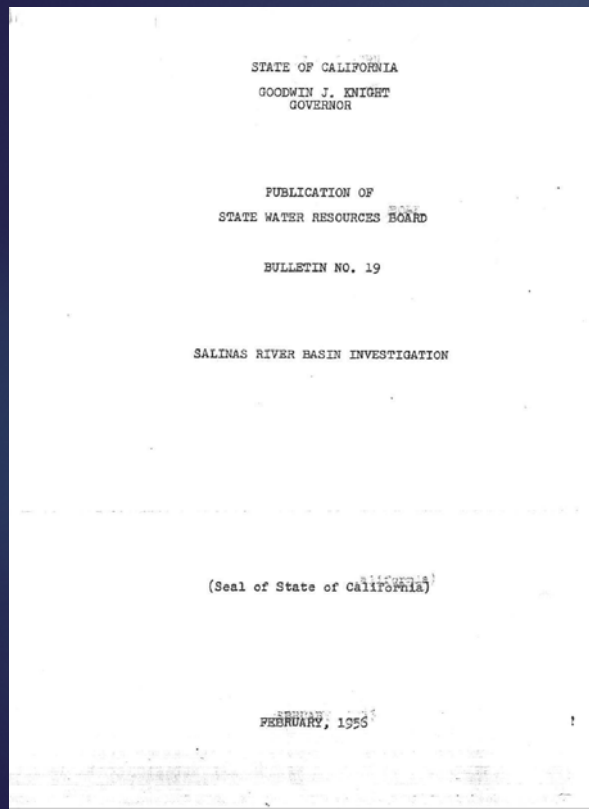


## 1900 – Conceptual and Historical Land Use and Development in Salinas Valley and Vicinity [Draft]



# Salinas Valley Water Development

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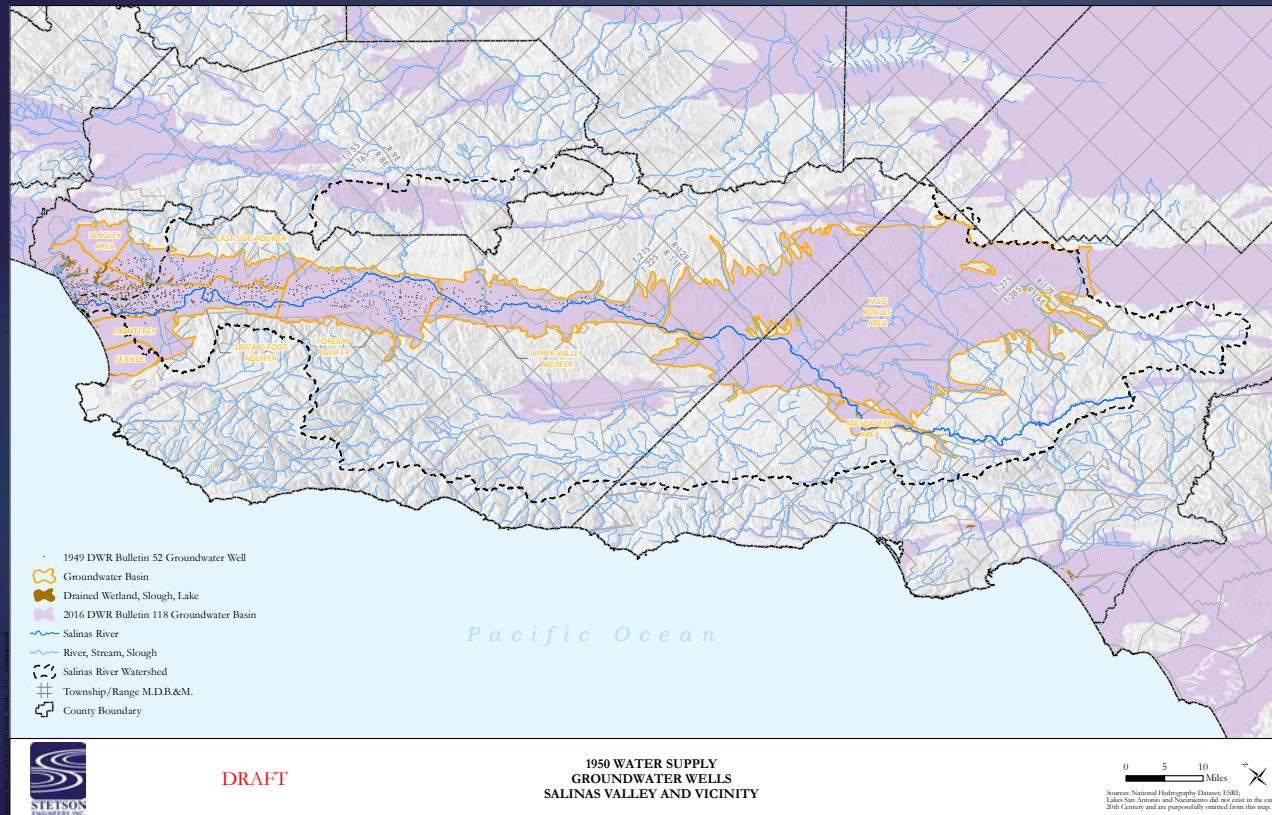


In response to the salt-water intrusion issues, the California Division of Water Resources issued [Bulletin 19](#) and [Bulletin 52-B](#) that once again recommended storage of winter flows for use during the summer.

[California Department of Water Resources Bulletin 52 Map of Wells \(Plates 1-11\)](#)

# Salinas Valley Water Development

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Digitization reflecting the location of groundwater wells located in the Salinas Valley and vicinity as reported in the 1949 Department of Water Resources Bulletin 52.

[Digitization of 1949 DWR Bulletin 52 – Groundwater Wells in Salinas Valley and Vicinity \[Draft\]](#)

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# Salinas Valley Water Development (2016)

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## **2015 Salinas Valley Groundwater Level Contours & Seawater Intrusion Maps**

July 13, 2017  
Page 1



Special Joint Meeting of MCWRA BOD and  
Monterey County BOS

MCWRA and Monterey County July 13, 2017, joint presentation reflecting Salinas Valley groundwater level contours and seawater intrusion maps.

[2107 Joint Meeting of MCWRA and Monterey County to Consider 2015 Salinas Valley Groundwater Level Contours & Seawater Intrusion Maps](#)

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# APPENDIX 1 - References and Links

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PERIOD	SLIDE	DATE	TITLE	URL	STATUS	MAP DESCRIPTION
Aboriginal						
	5	1588	Americae sive Novi Orbis nova descriptio -- Cum privilegio decennali Ab. Ortelius delineab. Et excudeb. 1857	<a href="http://digitalcommons.csumb.edu/hornbeck_spa_1_a/21/">http://digitalcommons.csumb.edu/hornbeck_spa_1_a/21/</a>	CSUMB-Website	1588 map by Abraham Ortelius depicts what was known at the end of the 16 <sup>th</sup> Century about America and lands beyond, including New Guinea and, Solomon Islands and a portion of Australia.
	6	1802	Carta de los reconocimientos hechos en 1602 por el Capitan Sebastian Vizcayno -- formada por los Planos que hizo el mismo durante su comisi3n -- Cardano lo grab3	<a href="http://digitalcommons.csumb.edu/hornbeck_spa_1_a/22/">http://digitalcommons.csumb.edu/hornbeck_spa_1_a/22/</a>	CSUMB-Website	1802 map based on exploration of the California coastline from Cabo San Lucas to Cape Mendocino by Sebastian Vizcayno in 1602 to 1603.
	7	1650	Am3rique septentrional	<a href="http://digitalcommons.csumb.edu/hornbeck_spa_1_a/17/">http://digitalcommons.csumb.edu/hornbeck_spa_1_a/17/</a>	CSUMB-Website	1650 French map of North American with California depicted as an island.
	8	2013	California Indian Culture Areas, Unratified Treaty Lands and State of California County Boundaries	<a href="http://digitalcommons.csumb.edu/hornbeck_ind_2/3/">http://digitalcommons.csumb.edu/hornbeck_ind_2/3/</a>	CSUMB-Website	2013 map depicting California Indian Culture Areas, Unratified Treaty Lands and State of California County
Spanish Development Policy						
	10	1772	Plano Geogr3fico de la mayor parte de la America Septentrional Espa3ola	<a href="http://digitalcommons.csumb.edu/hornbeck_spa_1_a/19/">http://digitalcommons.csumb.edu/hornbeck_spa_1_a/19/</a>	CSUMB-Website	1772 Map of New California created by the Spanish Government at the beginning of the Mission Period.
	11	1823	Carte Esferica de los Territorios de Sonora	<a href="http://digitalcommons.csumb.edu/hornbeck_spa_1_a/20/">http://digitalcommons.csumb.edu/hornbeck_spa_1_a/20/</a>	CSUMB-Website	1823 Mexican map depicting Northwest Mexico and Mexican territories including Alta California, Arizona and New Mexico, from Army Archives in Madrid Spain



# APPENDIX 1 - References and Links

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PERIOD	SLIDE	DATE	TITLE	URL	STATUS	MAP DESCRIPTION
<b>Mexican Development Policy</b>						
	13	1832	Map of United States of Mexico Second Edition 1846	<a href="http://digitalcommons.csumb.edu/hornbeck_mex_1/1/">http://digitalcommons.csumb.edu/hornbeck_mex_1/1/</a>	CSUMB-Website	1832 Map of Mexico showing what was known about California, a Mexican Territory.
	14	1839	Carta esférica de la costa de la Alta California	<a href="http://digitalcommons.csumb.edu/hornbeck_mex_1/6/">http://digitalcommons.csumb.edu/hornbeck_mex_1/6/</a>	CSUMB-Website	1839 chart of the coast of the Alta California: between parallels of 32 ° and 38 ° north depicting coastal depths, drainage, missions, pueblos, presidios, etc.
	15	1784-1839	Spanish Land Concessions and Mexican Lands Grants	<a href="http://digitalcommons.csumb.edu/hornbeck_mex_1/9/">http://digitalcommons.csumb.edu/hornbeck_mex_1/9/</a>	CSUMB-Website	Maps showing the distribution of Spanish land concessions and Mexican land grants made in Alta California from 1784 through 1839
	16	1840-1846	Mexican Land Grants	<a href="http://digitalcommons.csumb.edu/hornbeck_mex_1/9/">http://digitalcommons.csumb.edu/hornbeck_mex_1/9/</a>	CSUMB-Website	Maps showing the distribution of Mexican land grants made in Alta California from 1840 through 1848.
<b>USA Development Policy</b>						
	18	1816	Map of United States with the Contiguous British and Spanish Possessions	<a href="http://digitalcommons.csumb.edu/hornbeck_usa_1/7/">http://digitalcommons.csumb.edu/hornbeck_usa_1/7/</a>	CSUMB-Website	1816 Map showing what United States thought the West looked like after Lewis and Clark's expedition
	19	1847	Map of Oregon and Upper California	<a href="http://digitalcommons.csumb.edu/hornbeck_usa_1/1/">http://digitalcommons.csumb.edu/hornbeck_usa_1/1/</a>		1848 Map of Oregon and California for the General Public after the Mexican War
	20	1848	Map of Oregon and Upper California from the Surveys of John Charles Fremont and Other Authorities	<a href="http://digitalcommons.csumb.edu/hornbeck_usa_1/12/">http://digitalcommons.csumb.edu/hornbeck_usa_1/12/</a>	CSUMB-Website	1848 Map of Oregon and California prepared by Fremont for the US Senate
	21	1851, Mar. 3	09 Stat. 631, An Act to Settle Private Land Claims in California	<a href="http://digitalcommons.csumb.edu/hornbeck_usa_2_d/7/">http://digitalcommons.csumb.edu/hornbeck_usa_2_d/7/</a>	CSUMB-Website	1851 March 3 -- 09 Stat. 631, "An Act to Settle Land Claims in California"
	22	1859	U.S. Surveyor General Map of Public Surveys in California	<a href="http://digitalcommons.csumb.edu/hornbeck_usa_1/6/">http://digitalcommons.csumb.edu/hornbeck_usa_1/6/</a>	CSUMB-Website	1859 U.S. Surveyor General map of California detailing the location of 196 private land grants that had been surveyed.

# APPENDIX 1 - References and Links

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PERIOD	SLIDE	DATE	TITLE	URL	STATUS	MAP DESCRIPTION
Land Development in Salinas Valley Groundwater						
	25	1825	Missions Spheres of Influence Circa 1825 in Salinas Valley and Vicinity [Draft]	<a href="http://digitalcommons.csumb.edu/hornbeck_spa_1_b/4/">http://digitalcommons.csumb.edu/hornbeck_spa_1_b/4/</a>	CSUMB-Website	1820 Mission Spheres of Influence circa 1825 in Salinas Valley and Vicinity [Draft]
	26	1845	Conceptual Land Use Patterns Inferred by Diseños Submitted to Mexican Government, Salinas Valley and Vicinity [Draft].	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_4/11/">http://digitalcommons.csumb.edu/hornbeck_cgb_4/11/</a>	CSUMB-Website	Map depicts land use patterns as inferred by diseños submitted to the Mexican government, Salinas Valley and vicinity.
	27	1852	Arroyo Seco (Torre) - Diseños GLO No. 297 APN 109 APN 111 Monterey County	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_2_a/2/">http://digitalcommons.csumb.edu/hornbeck_cgb_2_a/2/</a>	CSUMB-Website	1852 Diseno of Arroyo Seco
	28	1780-1920	BLM Patents in the Salinas Valley and Vicinity by County in Relation to the Bulletin 118 Salinas Valley Groundwater Basin	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_2_b/7/">http://digitalcommons.csumb.edu/hornbeck_cgb_2_b/7/</a>	CSUMB-Website	A series of tables summarizing the Bureau of Land Management patents issued in the Salinas Valley and vicinity (including Monterey, San Benito and San Luis Obispo Counties) as well as the amount of acreage, document class, entry class, cancellation status, acres of land contributing or not likely contributing to Salinas Valley Groundwater Basin.
	29	1848	Draft map based on BLM Public Land Survey depicting Spanish and Mexican land grants as of 1848.	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_2_b/6/">http://digitalcommons.csumb.edu/hornbeck_cgb_2_b/6/</a>	CSUMB-Website	A draft map based on the BLM Public Land Survey that depicts the location of grants issued by the Spanish and Mexican governments.
	30	1850 to Post 1925	Draft map depicting all BLM patents within the public land survey sections of the Salinas Valley and vicinity.	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_2_b/5/">http://digitalcommons.csumb.edu/hornbeck_cgb_2_b/5/</a>	CSUMB-Website	A draft map reflecting public land survey sections and location of all Bureau of Land Management patents granted within the Salinas Valley and vicinity between 1850 through post 1925.
	31	1850-1875	Draft map depicting location of BLM patents within the public land survey sections of the Salinas Valley.	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_2_b/1/">http://digitalcommons.csumb.edu/hornbeck_cgb_2_b/1/</a>	CSUMB-Website	A draft map reflecting public land survey sections and the location of all Bureau of Land Management patents granted within the Salinas Valley and vicinity between 1850 and 1875.
	32	1875-1900	Draft map depicting location of BLM patents within the public land survey sections of the Salinas Valley.	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_2_b/2/">http://digitalcommons.csumb.edu/hornbeck_cgb_2_b/2/</a>	CSUMB-Website	A draft map reflecting public land survey sections and the location of all Bureau of Land Management patents granted within the Salinas Valley and vicinity between 1875 and 1900.



# APPENDIX 1 - References and Links

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PERIOD	SLIDE	DATE	TITLE	URL	STATUS	MAP DESCRIPTION
Land Development in Salinas Valley Groundwater						
	33	1900-1925	Draft map depicting location of BLM patents within the public land survey sections of the Salinas Valley.	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_2_b/3/">http://digitalcommons.csumb.edu/hornbeck_cgb_2_b/3/</a>	CSUMB-Website	A draft map reflecting public land survey sections and the location of all Bureau of Land Management patents granted within the Salinas Valley and vicinity between 1900 and 1925.
	34	1925 and Later	Draft map depicting location of BLM patents within the public land survey sections of the Salinas Valley.	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_2_b/4/">http://digitalcommons.csumb.edu/hornbeck_cgb_2_b/4/</a>	CSUMB-Website	A draft map reflecting public land survey sections and the location of all Bureau of Land Management patents granted within the Salinas Valley and vicinity from 1925 and later.
	35	1780-1920	Township Populations in Salinas Valley from 1780 through 190.	<a href="http://digitalcommons.csumb.edu/hornbeck_research_rel/3/">http://digitalcommons.csumb.edu/hornbeck_research_rel/3/</a>	CSUMB-Website	Table C1 reflecting township populations in the Salinas Valley from 170 through 1920.
	36	1996	San Luis Obispo County Township and Range Map	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_4/12/">http://digitalcommons.csumb.edu/hornbeck_cgb_4/12/</a>	CSUMB-Website	1996 San Luis Obispo County map reflecting township and range
	37	1898	Official Map of Monterey County, Lou G.Hare	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_4/3/">http://digitalcommons.csumb.edu/hornbeck_cgb_4/3/</a>	CSUMB-Website	1898 Official Map of Monterey County
	38	1900	Conceptual and Historical 1900 Land Use and Development, Salinas Valley and Vicinity (canals not shown).	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_4/15/">http://digitalcommons.csumb.edu/hornbeck_cgb_4/15/</a>	CSUMB-Website	Conceptual and Historical map reflecting land use and development by 1900 in the Salinas Valley and vicinity (canals not shown).
	39	1932	Digitization of Allen 1932 Dissertation	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_4/18/">http://digitalcommons.csumb.edu/hornbeck_cgb_4/18/</a>	CSUMB-Website	Digitization Map of Types of Farming in Monterey County, Economic History of Agriculture in Monterey County as reflected in Rutlius Allen's 1932 Dissertation
	41	1775-2015	Decadal Land Use Estimates in the Salinas River Watershed and Groundwater Basin, Table 1.	<a href="http://digitalcommons.csumb.edu/hornbeck_research_rel/3/">http://digitalcommons.csumb.edu/hornbeck_research_rel/3/</a>	CSUMB-Website	Table 1, Land Use Estimates, Peter Reinelt; Estimated agricultural land use in the combined Salinas River Watershed and the DWR Bulletin 118 Salinas Valley Groundwater Basin beginning in 1771 through 2015.

# APPENDIX 1 - References and Links

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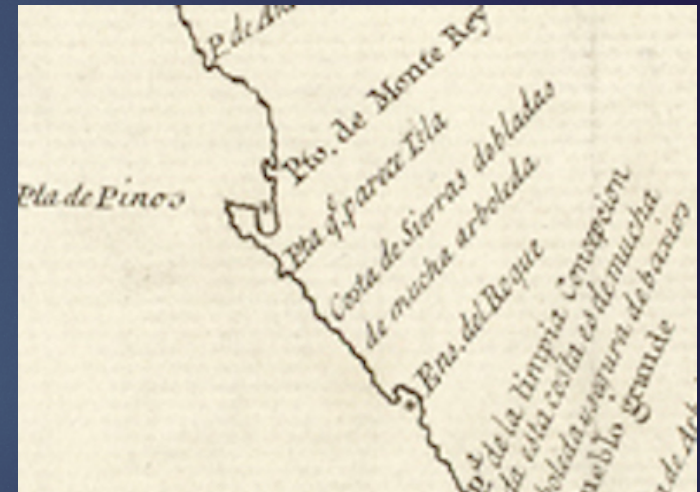
PERIOD	SLIDE	DATE	TITLE	URL	STATUS	MAP DESCRIPTION
Water Development in Salinas Valley Groundwater Basin						
	44	2016	Hydrogeologic Map of the Salinas River Basin	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_4/5/">http://digitalcommons.csumb.edu/hornbeck_cgb_4/5/</a>	CSUMB-Website	2016 Hydrological Map of the Salinas River Basin
	45	1993	Map of Mission San Antonio Padua	<a href="http://digitalcommons.csumb.edu/hornbeck_spa_1_b/1/">http://digitalcommons.csumb.edu/hornbeck_spa_1_b/1/</a>	CSUMB-Website	1993, March 5 - Map of Mission San Antonio De Padua National Historic Landmark District with mission site plan
	46	1872	APPROPRIATION AND NOTICE - Title 8, pt. 4, div. 2, Civil Code §§ 1410-1422	<a href="http://digitalcommons.csumb.edu/hornbeck_usa_3_h/1/">http://digitalcommons.csumb.edu/hornbeck_usa_3_h/1/</a>	CSUMB-Website	1872 - APPROPRIATION AND NOTICE - Title 8, pt. 4, div. 2, Civil Code §§ 1410-1422
	47	Pre-1914	Pre-1914 Water Right Claims and Diversions, Salinas River Valley	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_10/">http://digitalcommons.csumb.edu/hornbeck_cgb_10/</a> and <a href="http://digitalcommons.csumb.edu/hornbeck_research_rel/1/">http://digitalcommons.csumb.edu/hornbeck_research_rel/1/</a>	CSUMB-Website	Pre-1914 Water Right Claims and Diversions, Salinas River Valley
	48	1911, June 5	Notice of Water Claim; Clark Colony Water Company	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_10/32/">http://digitalcommons.csumb.edu/hornbeck_cgb_10/32/</a>	CSUMB-Website	1911 Clark Colony notice of water claim, appropriation and intention to divert water from the Arroyo Seco
	49	1900	Conceptual and Historical 1900 Land Use and Development, Salinas Valley and Vicinity with canals	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_4/15/">http://digitalcommons.csumb.edu/hornbeck_cgb_4/15/</a>	CSUMB-Website	Digital representation of land use and development including canals and pump systems in the Salinas Valley and vicinity in 1900
	50	1946, 1956	1946 - Salinas Basin Investigation Summary Report, Bulletin 52-B; 1956 - Salinas River Basin Investigation, Bulletin 19.	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_1/6/">http://digitalcommons.csumb.edu/hornbeck_cgb_1/6/</a> and <a href="http://digitalcommons.csumb.edu/hornbeck_cgb_1/9/">http://digitalcommons.csumb.edu/hornbeck_cgb_1/9/</a>	CSUMB-Website	1946 - Salinas Basin Investigation Summary Report, Bulletin No. 52-B; 1956 - Salinas River Basin Investigation, Bulletin No. 19.
	51	1949	Digitization of 1949 DWR Bulletin 52 - Groundwater Wells in Salinas Valley and vicinity [Draft]	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_4/14/">http://digitalcommons.csumb.edu/hornbeck_cgb_4/14/</a>	CSUMB-Website	Digitization of 1949 DWR Bulletin 52 - Groundwater Wells in Salinas Valley and vicinity [Draft]
	52	2015	Salinas Valley Groundwater Level Contours & Seawater Intrusion Maps	<a href="http://digitalcommons.csumb.edu/hornbeck_cgb_6_a/22/">http://digitalcommons.csumb.edu/hornbeck_cgb_6_a/22/</a>	CSUMB-Website	2017 joint meeting presentation of Monterey County Water Resources Agency and Monterey County to consider 2015 Salinas Valley groundwater level contours and seawater intrusion maps.



# APPENDIX 2 - Map Details for California or Salinas Valley Region



SLIDE NO. 5 – for CALIFORNIA [1588 *Americae sive Novi Orbis nova descriptio Cum privilegio decennali Ab. Ortelius delineab. Et excudeb. 1587*]

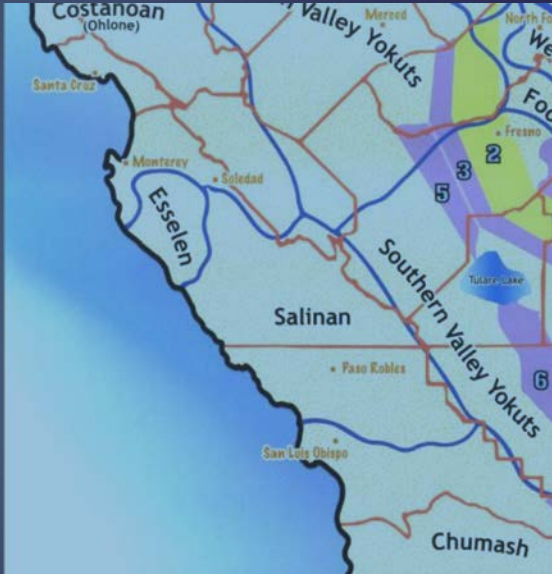


SLIDE NO. 6 – for SALINAS VALLEY REGION [1602 *Carta de los reconocimientos hechos en 1602 por el Capitan Sebastian Vizcayno formada por los Planos que hizo el mismo durante su comision Cardano lo grabo*]

# APPENDIX 2 – Map Details for California or Salinas Valley Region



SLIDE NO. 7 – for CALIFORNIA [1650 – Amerique septentrional]



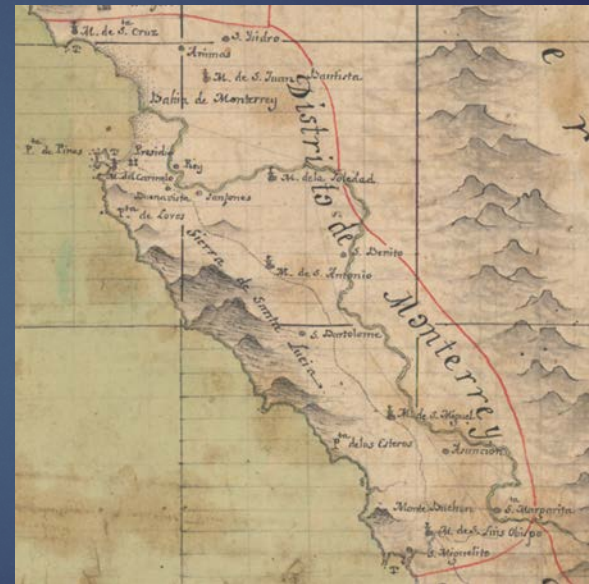
SLIDE NO. 8 – for SALINAS VALLEY REGION [2013 - Map of California Indian Cultures, Unratified Treaty Lands and County Boundaries]



# APPENDIX 2 – Map Details for California or Salinas Valley Region

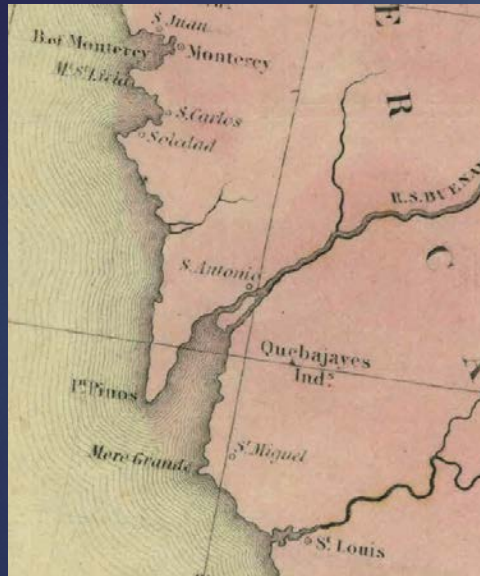


SLIDE NO. 10 – for CALIFORNIA [1772 [\[Plano Geográfico de la mayor parte de la America Septentrional Española\]](#)]

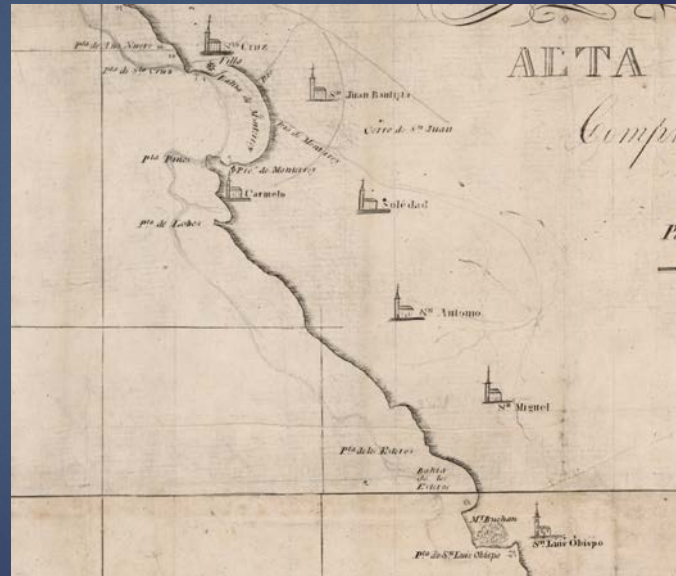


SLIDE NO. 11 – for SALINAS VALLEY REGIONS [1823 - [Carta Esferica de los Territorios de la Alta y baja Californias y Estado de Sonora](#)]

# APPENDIX 2 – Map Details for California or Salinas Valley Region



SLIDE NO. 13 – for SALINAS VALLEY REGION  
[1832 Map of United States of Mexico Second Edition 1846]



SLIDE NO. 14 – for SALINAS VALLEY REGION [1839  
c. - Carta esférica de la costa de la Alta California]



# APPENDIX 2 – Map Details for California or Salinas Valley Region



SLIDE NO. 18 – for SALINAS VALLEY REGION [1816 - Map of United States with the contiguous British and Spanish Possessions]



SLIDE NO. 19 – for SALINAS VALLEY REGION [1847 - Map of Oregon and Upper California]

# APPENDIX 2 – Map Details for California or Salinas Valley Region



SLIDE NO. 20 – for SALINAS VALLEY REGION [1848 - [Map of Oregon and upper California from the surveys of John Charles Frémont and other authorities](#)]

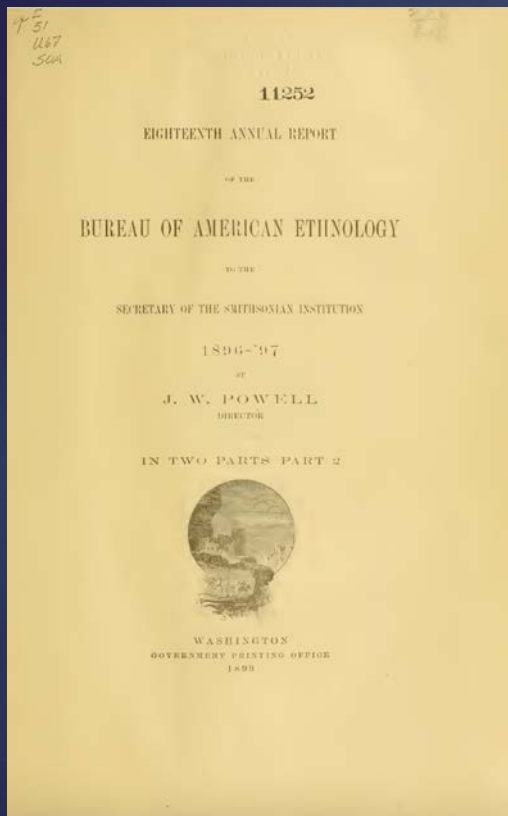


SLIDE NO. 22 – for SALINAS VALLEY REGION [1859 - [US Surveyor General Map of Public Surveys in California](#)]



# Appendix 3 California Indian Land Cessions

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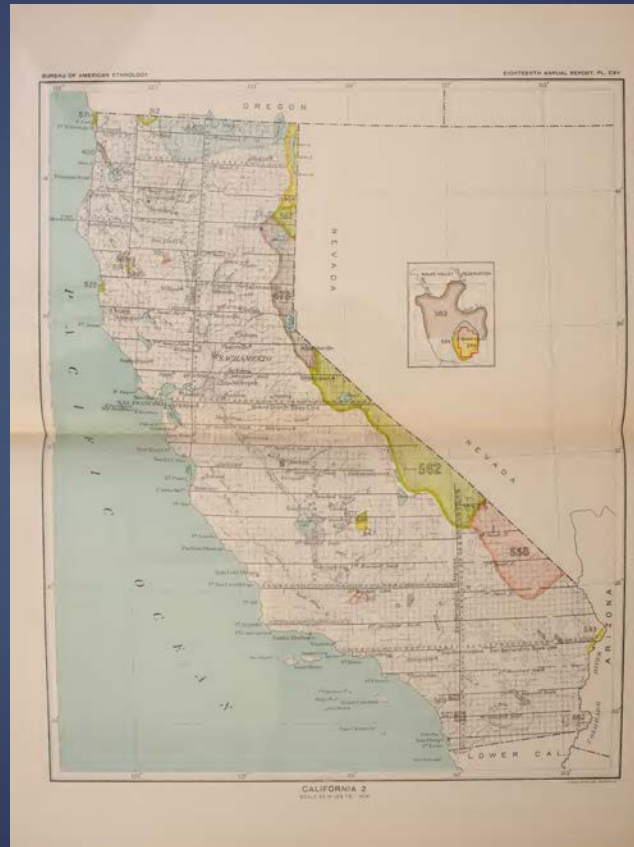
Eighteenth Annual Report of the Bureau of American Ethnology to the Secretary of the Smithsonian Institution, 1896-1897 by J. W. Powell, Director, Part 2. Includes "Schedule of Indian Cessions and Corresponding Maps. In addition to the report, included are:

- Schedule of Treaties and Acts of Congress Authorizing Allotments of Land in Severalty (pp. 645-647)
- Schedule of Indian Land Cessions containing date of treaty, where or how concluded, tribe(s), description of cession or reservation, historical data and remarks, and designation on corresponding map (pp. 648-949)
- List of Indian Land Cessions by Tribes (pp.951-9640; and
- Maps for each state showing location of cessations or reservations

[1899 – Eighteenth Annual Report of the Bureau of American Ethnology, Part 2](#)

# Appendix 3 California Indian Land Cessions

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Maps reflecting the California Indian cessations as of 1896. The numbers on the maps correspond to the tribe(s) "map designation number" found on the *Schedule of Indian Land Cessions*, in the 18<sup>th</sup> Annual Report of the Bureau of Ethnology for 1896-1897.

[Indian Land Cession Map, California 1, Plate CXIV, No 7;](#)  
[Indian Land Cession Map, California 2, Plate CVX, No 8](#)

14 August 2017 - DRAFT